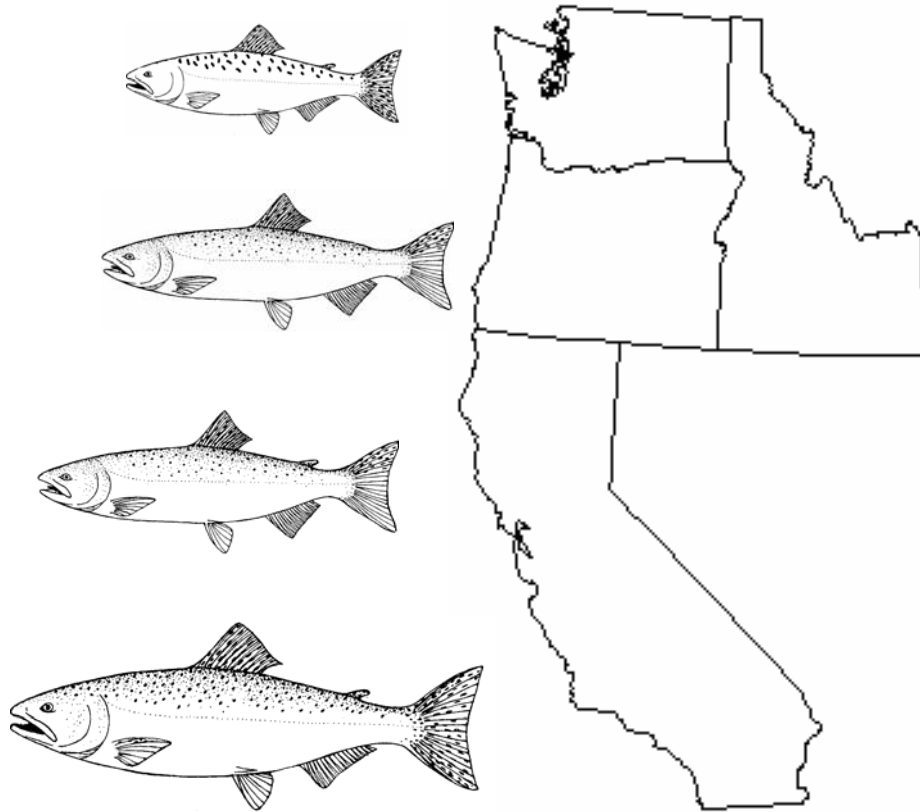


PRESEASON REPORT III

ANALYSIS OF COUNCIL ADOPTED MANAGEMENT MEASURES FOR 2006 OCEAN SALMON FISHERIES

PREPARED BY THE SALMON TECHNICAL TEAM



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TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	ii
LIST OF FIGURES	iii
LIST OF ACRONYMS AND ABBREVIATIONS.....	iv
INTRODUCTION	1
SELECTION OF FINAL MANAGEMENT MEASURES	1
INSEASON MANAGEMENT	2
NEW MANAGEMENT MEASURES	2
South of Cape Falcon.....	2
Commercial Measures	2
Recreational Measures	3
North of Cape Falcon.....	4
Commercial Measures	4
Recreational Measures	4
ESTIMATED SALMON STOCK IMPACTS OF COUNCIL ADOPTED MANAGEMENT MEASURES	5
CHINOOK SALMON ASSESSMENT	5
South of Cape Falcon.....	5
U.S./Mexico Border to Horse Mountain.....	5
Horse Mountain to Humbug Mountain.....	5
Humbug Mountain to Cape Falcon.....	6
North of Cape Falcon.....	6
COHO SALMON ASSESSMENT	7
South of Cape Falcon.....	7
North of Cape Falcon.....	8
SOCIOECONOMIC IMPACTS OF PROPOSED OPTIONS.....	9
APPENDIX A	35
BIOLOGICAL EVALUATION OF 2006 COUNCIL-ADOPTED OCEAN SALMON FISHERY IMPACTS ON FISH SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT	35

LIST OF TABLES

	<u>Page</u>
TABLE 1. Commercial troll management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries.....	12
TABLE 2. Recreational management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries.....	18
TABLE 3. Treaty Indian ocean troll management measures adopted by the Council for 2006 ocean salmon fisheries.....	23
TABLE 4. Chinook and coho harvest quotas and guidelines (*) for 2006 ocean salmon fishery management measures adopted by the Council.....	24
TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2006 ocean fishery management measures adopted by the Council	25
TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2006 ocean salmon fishery management measures adopted by the Council.....	28
TABLE 7. Expected coastwide lower Columbia River (LCR) natural, Oregon coastal natural (OCN), and Rogue/Klamath (RK) coho exploitation rates by fishery for 2006 ocean fisheries management measures adopted by the Council	29
TABLE 8. Projected coho mark rates for 2006 fisheries under base period fishing patterns	30
TABLE 9. Preliminary projected exvessel value under Council-adopted 2006 non-Indian commercial troll regulatory options compared to 2005 and the 2001-2005 average	31
TABLE 10. Preliminary projected angler trips and coastal community income impacts generated under Council-adopted 2006 recreational ocean salmon fishery regulatory options compared to 2005 and the 2001-2005 average.....	32

LIST OF FIGURES

	<u>Page</u>
FIGURE 1. Council-adopted non-Indian commercial salmon seasons for 2006.....	17
FIGURE 1. Council-adopted non-Indian recreational salmon seasons for 2006.....	22
FIGURE 3. Projected coastal community personal income impacts associated with the 2006 commercial troll fishery under Council-adopted management measures compared to 2005 and the 2001-2005 average in real (inflation adjusted) dollars.	33
FIGURE 4. Projected coastal community personal income impacts associated with the 2006 recreational fishery under Council-adopted management measures compared to 2005 and the 2001-2005 average in real (inflation adjusted) dollars.	34

LIST OF ACRONYMS AND ABBREVIATIONS

AABM	Aggregate Abundance Based Management
AEQ	adult equivalent
BO	biological opinion
CCC	Central California coastal coho
CDFG	California Department of Fish and Game
CERC	critical exploitation rate ceiling
CFGC	California Fish and Game Commission
Council	Pacific Fishery Management Council
CTC	Chinook Technical Committee of the Pacific Salmon Commission
CVI	Central Valley index
CWT	coded-wire tag
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FRAM	Fishery Regulation Assessment Model
FMP	fishery management plan
HRM	Hook and release mortality
ISBM	Individual Stock Based Management
KFMC	Klamath Fishery Management Council
KMZ	Klamath Management Zone (the ocean zone between Humbug Mountain and Horse Mountain where management emphasis is on Klamath River fall Chinook)
KRFC	Klamath River Fall Chinook
LCR	lower Columbia River (natural coho)
LRH	lower river hatchery (tule fall Chinook returning to hatcheries below Bonneville Dam)
MCB	Mid-Columbia River brights (bright hatchery fall Chinook released in the mid-Columbia River)
MEW	Model Evaluation Workgroup
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
ODFW	Oregon Department of Fish and Wildlife
OCN	Oregon coastal natural (coho)
PSC	Pacific Salmon Commission
PST	Pacific Salmon Treaty
RER	rebuilding exploitation rate
RMP	Resource Management Plan
RK	Rogue/Klamath (hatchery coho)
SAS	Salmon Advisory Subpanel
SCH	Spring Creek Hatchery (tule fall Chinook returning to Spring Creek Hatchery)
SONCC	Southern Oregon/Northern California coastal coho
SRFI	Snake River Fall (Chinook) Index
STT	Salmon Technical Team
TAC	total allowable catch
TL	total length
URB	upper river brights (bright fall Chinook normally migrating past McNary Dam)
WCVI	West Coast Vancouver Island
WDFW	Washington Department of Fish and Wildlife

INTRODUCTION

This is the last in a series of three preseason reports prepared by the Pacific Fishery Management Council's (Council) Salmon Technical Team (STT) and staff. The reports document and help guide salmon fishery management in the exclusive economic zone (EEZ) from three to 200 nautical miles off the coasts of Washington, Oregon, and California, and within state territorial waters. This report summarizes the STT analysis of the 2006 ocean salmon fishery management measures adopted by the Council for submission to the U.S. Secretary of Commerce. A biological evaluation of expected impacts on stocks listed under the Endangered Species Act (ESA) is included in Appendix A. This report serves as the basis for an Environmental Assessment (EA), addressing the 2006 ocean salmon management measures, and is analogous to a preferred alternative in a National Environmental Policy Act (NEPA) analysis.

SELECTION OF FINAL MANAGEMENT MEASURES

The Council's recommendations for the 2006 ocean salmon fishery regulations meet or exceed the obligations under the Pacific Salmon Treaty (PST), the level of protection required by all consultation standards for salmon species listed under the ESA, and all objectives of the Pacific Coast Salmon Plan (Salmon FMP) except the conservation objective for Klamath River fall Chinook (KRFC), which requires a minimum natural spawning escapement of 35,000 adults annually. The spawning escapement floor for naturally spawning KRFC was projected to not be attained even with complete closure of ocean salmon fisheries between Cape Falcon, Oregon; and Point Sur, California, therefore, the Council's recommended management measures require implementation by emergency rule. The National Marine Fisheries Service (NMFS) advised the Council to structure 2006 salmon fishery management measure recommendations with a limit of no less than 21,000 natural spawning adult KRFC.

The following figures and tables describe the 2006 Council-adopted management measures:

- Table 1-Non-Indian commercial ocean salmon management measures, pages 10-13;
- Figure 1-geographic outline of commercial troll (non-Indian) ocean salmon seasons, page 14;
- Table 2-recreational ocean salmon management measures, pages 15-18;
- Figure 2-geographic outline of recreational ocean salmon seasons, page 19;
- Table 3-treaty Indian commercial ocean management measures, page 20; and
- Table 4-allowable catch quotas for Chinook and coho, page 21.

In addition, Tables 5, 6, and 7 provide information on the biological impacts and landing estimates for the Council's management recommendations. Table 8 displays the expected mark (healed adipose fin clip) rate for coho encountered in mark-selective fisheries. Tables 9 and 10, and Figures 3 and 4, provide information on the economic impacts of the proposed fisheries.

The 2006 seasons are constrained primarily by: (1) endangered Sacramento River winter Chinook south of Point Arena; (2) KRFC from Cape Falcon south to Point Sur; (3) threatened Snake River and lower Columbia River (LCR) natural tule fall Chinook north of Cape Falcon; and (4) threatened LCR natural coho north of Humbug Mountain. Both recreational and non-Indian commercial fisheries operate under restrictions that permit retention only of marked coho.

Regulations and expected fishing patterns for the treaty-Indian ocean fisheries were developed by the Hoh, S'Klallam, Makah, Quileute, and Quinault tribes for their respective fisheries. The Council recommendations include continuation of the encounter rate study to be conducted by the Makah Tribe in the Cape Flattery area. The purpose of the study is to estimate encounter rates of sub-legal and legal size Chinook and coho salmon during troll fisheries directed at each species.

INSEASON MANAGEMENT

Some management measures may be modified through inseason action by the NMFS after consultation with the Council Chair, affected management agencies, and pertinent tribes and public. Inseason changes are made to meet the preseason intent of the management measures described in this document, but must also meet the Council's Salmon FMP goals, especially in regard to conservation and allocation goals, Federally-recognized Indian fishing rights, consultation standards for ESA-listed salmon stocks, and obligations under the PST.

Inseason actions that are anticipated for 2006 include, but are not limited to, the following possibilities:

1. Adjustments in landing limits and days open for non-Indian commercial fisheries.
2. Changing the days or number of days of fishing allowed per calendar week for recreational fisheries.
4. Transfer of coho quotas among recreational port areas north of Cape Falcon.
5. Trading portions of Chinook and coho quotas between recreational and non-Indian commercial sectors north of Cape Falcon.
6. Routine openings and closings, and other management measures associated with quota management, including modifying open areas, bag limits, species retention limits, and mark retention restrictions.
7. Closing recreational and commercial fisheries scheduled to open between February 1 and April 30, 2007 if necessary to meet 2007 management objectives.

Inseason action will generally be accomplished through NMFS-sponsored conference calls attended by representatives of affected state and tribal management agencies, the Council, the Salmon Advisory Subpanel (SAS), and the STT. The Council may also make recommendations for inseason actions at any of its regularly scheduled meetings.

In addition to the seasons shown in Tables 1 and 2, it is anticipated the Oregon Department of Fish and Wildlife (ODFW) and California Department of Fish and Game (CDFG) may permit Chinook-only fisheries in certain areas within state waters. Potential seasons off the Oregon coast include commercial and recreational fisheries at the mouths of the Chetco and Elk Rivers and at the mouth of Tillamook Bay. Council intent generally advocates that state-water fisheries have the same basic regulations as adjacent Federal waters, particularly if open simultaneously; however, the Oregon State-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.

Information regarding potential fisheries within California State waters is not available at this time. The State of Washington may also establish limited recreational fisheries in state waters if additional impacts on critical coho and/or Chinook stocks can be accommodated within management constraints.

NEW MANAGEMENT MEASURES

South of Cape Falcon

Commercial Measures

The commercial fishery management measures for this area are substantially more restrictive than in 2005. Changes in the management measures include the following:

- The area from Cape Falcon to the Florence south jetty (Tillamook-Newport) is closed in March, April and May. The area from Florence south jetty south to Horse Mountain, California is closed in 2006. This is the first year the area from Florence to Humbug Mt., Oregon (Coos Bay) has not had a commercial fishery.

- The Tillamook-Newport area is open for sixteen days in June compared to the full month in 2005. There are nine open days in July and three in August in 2006, whereas these months were entirely closed in 2005. There is a landing and possession limit of 75 Chinook per vessel per calendar week (Sunday through Saturday), June through August, and a 50 Chinook per vessel per calendar week in September and October.
- In the Humbug Mountain to OR/CA Border area (Oregon KMZ), the fishery is closed. In 2007, the fishery opens March 15 (subject to Council review at its March 2007 meeting) for all salmon except coho with a minimum size limit of 28 inches total length.
- In the OR/CA Border to Horse Mountain area (California KMZ), the fishery is closed.
- In the Horse Mountain to Point Arena area (Fort Bragg), the fishery opens September 1 through the earlier of September 15 or a 4,000 Chinook quota. There is a daily landing and possession limit of 30 Chinook, and all fish caught in the area must be landed in the area. In 2007, the area will open March 15 (subject to Council review at its March 2007 meeting) for all salmon except coho, with a minimum size limit of 27 inches total length
- In the Point Arena to Pigeon Point area (San Francisco), the fishery is open July 26 through August 31 for all salmon except coho, with a weekly (Sunday through Saturday) landing and possession limit of 75 Chinook per vessel; fish caught in the area must be landed south of Horse Mountain. The fishery reopens September 1 through the earlier of September 30 or a Chinook quota of 20,000; fish caught in the area must be landed in the area (or in an adjacent closed area if that area has been closed for at least 96 hours). In October, the fishery is open between Point Reyes and Point San Pedro October 2-6 and October 9-13; fish caught in the area must be landed in the area between Point Arena and Pigeon Point.
- In the Pigeon Point to Point Sur area (Monterey), the fishery is open May 1-31 and July 26 through August 31 for all salmon except coho, with a weekly landing and possession limit of 75 Chinook; fish caught in the area must be landed in the area south of Point Arena. The fishery reopens September 1-30, and all fish caught in the area must be landed in an area south of Pigeon Point (or in an adjacent closed area if that area has been closed for at least 96 hours).
- In the Point Sur to U.S./Mexico Border area, the fishery is open May 1 through September 30, and all fish caught in the area must be landed south of Pigeon Point.
- In all areas of California, the minimum size limit is 27 inches total length during May, June, and September, 28 inches total length in July and August, and 26 inches total length in October.

Recreational Measures

The recreational fishery management measures for this area are more restrictive than in 2005. Changes in the management measures include the following:

- For the Cape Falcon to the Oregon/California border area, the mark selective coho fishery opens June 17 and closes July 31 or when the overall quota of 20,000 marked coho is reached. A change for 2006 also includes a fishery from September 1 through the earlier of September 6 or a landed catch of any remaining coho quota from the June 17 through July 31 fishery.
- In the Humbug Mountain to Horse Mountain area (KMZ), the Chinook fishery is reduced 17 days and is open May 15 through July 4 and September 1-6, 17 days less than in 2005, with a Chinook minimum size limit of 24 inches total length. The mark selective coho fishery in the Oregon KMZ will close July 4.

- In the Horse Mountain to Point Arena area (Fort Bragg), the fishery is open February 12 through May 31; June 1-30 Wednesday through Saturday; July 1-9, 15-16, 22-23, 26-31; and August 1 through November 12. The season will be open 17 days less than in 2005. In 2007, the season opens February 17.
- For the Point Arena to Pigeon Point area (San Francisco), the fishery is limited to state waters only during April. The fishery reopens in all waters May 1 through June 11; June 14 through July 9; and July 12 through November 12. In 2007, the season opens April 7.
- For the Pigeon Point to Point Sur area (Monterey), fishing is limited to state waters only during April. The fishery reopens in all waters May 1 through September 24. In 2007, the season opens April 7.
- For the Pigeon Point to U.S./Mexico Border area, the fishery is open April 1 through September 24. In 2007, the season opens April 7.
- For all areas south of Horse Mountain, the minimum size limit is 20 inches total length.

North of Cape Falcon

Commercial Measures

The treaty Indian Chinook quota was distributed with 22,700 Chinook to be taken during the May-June Chinook-directed fishery and 19,500 during the July 1 through September 15 all-salmon fishery. There is no roll-over of any Chinook that are not harvested during the May-June Chinook-directed fishery into the all-salmon fishery. The non-Indian commercial Chinook quota was distributed with 22,450 Chinook to be taken during May and June and 11,550 during July 15 through September 15. Overall Chinook total allowable catches (TACs) were 11% less and 21% less for treaty Indian and non-Indian commercial fisheries, respectively, compared to 2005.

Coho quota levels for both treaty-Indian and non-Indian troll fisheries are intended to limit impacts on LCR natural and Interior Fraser coho. All coho retained by the non-Indian commercial troll fishery must be marked. Coho TACs in 2006 are 37,500 (no mark requirements) for treaty Indian ocean fisheries, and 6,800 for non-Indian commercial fisheries, down 25% and 71%, respectively from 2005.

To protect threatened Hood Canal summer-run chum, retention of chum is prohibited north of Cape Alava in August and September.

Recreational Measures

To protect threatened Puget Sound Chinook stocks, retention of Chinook is only allowed in Area 4B east of the Bonilla-Tatoosh line prior to August 1, while the ocean fishery is open in Area 4 (Neah Bay area west of the Bonilla-Tatoosh line and north of Cape Alava). Beginning August 1, the Grays Harbor Control Zone is closed to protect returning Grays Harbor fall Chinook.

The ocean coho quotas were reduced to 55% of the 2005 season TAC to limit impacts on LCR natural coho and Interior Fraser coho. The recreational fishery is permitted to retain only marked coho.

The Chinook minimum size limit is set at 24 inches total length and the subareas north the Queets River are starting with only five days per week open (Tuesday through Saturday) to improve the likelihood of

extending the length of the season through Labor Day. The bag limit for 2006 is two fish, no more than one of which may be a Chinook, with no chum retention in August and September north of Cape Alava.

ESTIMATED SALMON STOCK IMPACTS OF COUNCIL ADOPTED MANAGEMENT MEASURES

Procedures and assumptions employed in the evaluation of regulatory impacts are reviewed and maintained in records kept by the STT. In modeling non-retention and mark-selective fishery impacts, the Council has adopted hook-and-release mortality (HRM) rates of 26% for the commercial fishery, 14% for recreational fishery north of Point Arena, California, and 20% for the recreational fishery south of Point Arena. The HRM rate of 14% for the recreational fishery north of Point Arena was adopted in 2001 and is the result of a comprehensive review by the STT. The HRM rate of 20% for the recreational fishery south of Point Arena is based on the proportion of mooching and trolling gear used in the fishery during 2005 and the HRMs of 42.2% and 14% for these two respective gear types. In addition, a drop-off mortality impact is applied to all hook-and-line fisheries (generally, 5% of the total encounters).

CHINOOK SALMON ASSESSMENT

Ocean Chinook harvest quotas are summarized in Table 4. Table 5 lists expected escapements and other key Chinook management criteria, including allocation of KRFC and data relevant to consultation standards for ESA-listed stocks. Expected ocean harvest and incidental non-retention mortality are provided in Table 6. Further details of fishery impacts on stocks listed under the ESA are provided in Appendix A.

South of Cape Falcon

Considerations in shaping the Chinook fisheries in this area include the protection of ESA-listed Sacramento River winter and California Coastal Chinook (Appendix A), and achievement of fall Chinook spawning escapement goals for the Klamath, Sacramento, and Oregon coastal rivers. In 2006, Chinook fisheries in this area are constrained primarily to comport with the NMFS guidance received at the Council's April 2006 meeting: (1) a minimum projected natural area spawning escapement of 21,000 adult KRFC and (2) additional precautionary management measures (e.g., weekly landing limits) that are anticipated to reduce KRFC fishery impacts below modeled levels. Additional shaping of fisheries was done to meet KRFC harvest allocation objectives, and to satisfy NMFS ESA consultation standards for Sacramento River winter Chinook (Table 5).

U.S./Mexico Border to Horse Mountain

Central Valley (primarily Sacramento River) fall Chinook is the Council's primary management unit in this area. Under the adopted management measures, the projected spawning escapement for Sacramento River fall Chinook is 368,000 adult fish. This is above the spawner escapement goal range of 122,000 to 180,000 hatchery and natural fall Chinook adults combined. Ocean commercial fisheries in this area are expected to land 140,700 Chinook; a 58% decrease from the observed 2005 landings (Table 6). Ocean recreational fisheries in this area are expected to land 87,200 Chinook; a 31% decrease over the observed 2005 landings (Table 6).

Horse Mountain to Humbug Mountain

This area is designated as the KMZ because the primary stock of concern is KRFC. Ocean escapement of KRFC to the Klamath River in 2006 is projected to be 47,600 adults. After river tribal and recreational fishery impacts, the total number of spawners is expected to be 36,400 adults, of which 21,100 are expected to spawn in natural areas.

Management constraints for KRFC usually affect the shaping of many ocean fisheries from northern Oregon to central California, as well as Klamath River tribal and recreational fisheries. Therefore the Council, with assistance from the Klamath Fishery Management Council (KFMC), identified several specific adult harvest allocation objectives for this stock (Table 5). The Council's adopted regulations are expected to result in:

- 50% (10,000 KRFC) of the available harvest to the Indian tribes of the Klamath-Trinity River Basin with Federally-recognized fishing rights (Yurok and Hoopa Valley tribes);
- 0% of the non-Indian harvest to the Klamath River recreational fishery. A fishery allowing retention of steelhead, spring Chinook, and jack fall Chinook, but not allowing retention of adult fall Chinook, is proposed for this sector, which is expected to result in a catch-and-release mortality of 300 adult KRFC;
- 100% (10,000 KRFC) of the non-Indian harvest to the ocean fisheries;
- 8.8% (900 KRFC) of the ocean harvest to the KMZ recreational fishery; and
- 44% and 56% (3,700 and 4,700 KRFC) of the ocean commercial harvest of KRFC to the States of California and Oregon, respectively.

Ocean commercial fisheries in the KMZ area will be closed in 2006. Ocean recreational fisheries in the KMZ area are expected to land 7,300 Chinook (all stocks); a 57% decrease from the 2005 recreational landings (Table 6).

Humbug Mountain to Cape Falcon

The primary Chinook stocks of concern in this area originate in California and Oregon coastal river systems. KRFC and Sacramento River fall Chinook also contribute significantly to the harvest. The ocean escapement of these stocks in 2006 is expected to be sufficient to provide for estuary and freshwater fisheries and meet spawner escapement goals except for KRFC.

Chinook impacts in this area are primarily associated with the commercial fisheries, as recreational fishing effort is traditionally focused on coho. Recreational coho fishing was closed from 1994 to 1998 and reopened to limited mark-selective harvest of coho in 1999.

Management measures are designed to provide KRFC adult natural spawner escapement above the 21,000 minimum level for 2006 provided by NMFS guidance at the April Council meeting. After August, most mature fall Chinook in this area are no longer available to ocean fisheries, and impacts after September 1 are counted against the allowable harvest for the following year. As in recent years, commercial troll gear restrictions have also been recommended to reduce coho impacts (Table 1).

The 2006 commercial fishery catch projection is 45,100 Chinook for this area, an 80% decrease from the 2005 catch of 238,400 Chinook (Table 6).

North of Cape Falcon

Management objectives for Chinook fisheries in this area are to comply with NMFS ESA consultation standards, meet treaty Indian sharing obligations, and to the extent possible, provide for viable ocean and inriver fisheries while meeting natural stock escapement objectives and hatchery fall Chinook brood stock needs. Bonneville Pool and LCR hatchery fall Chinook have historically been the major contributors to ocean fishery catches in the Council area north of Cape Falcon. This year, impact limits on ESA-listed

LCR natural tule (Coweeman) fall Chinook and LCR natural coho constrained ocean fisheries in this area. All NMFS consultation standards for ESA-listed stocks are expected to be met (Table 5).

The June 1999 PST Agreement for Chinook requires that impacts of Individual Stock Based Management (ISBM) fisheries be reduced relative to the 1979-1982 base period for select depressed naturally spawning stocks of interest to the Pacific Salmon Commission (PSC). For PST purposes, all southern U.S. fisheries, including Council area fisheries, are ISBM fisheries. These reductions are to be measured using the Non-Ceiling Fishery Index (ISBM index) recommended by the PSC's Chinook Technical Committee (CTC) in 1991. This index measures a reduction in the adult equivalent total mortality rate, relative to the 1979 through 1982 base period. The PST specifies that for stocks not meeting their escapement objectives, the general obligation is to achieve an ISBM index not to exceed 60.0%. Table 5 shows the predicted ISBM index for select naturally spawning stocks. The ISBM index for the Lake Washington stock is currently estimated to be slightly above the 60.0% PSC standard. Because this stock is very small (expected escapement in 2006 is 579 adults), the reliability of the preseason point estimate of the ISBM index is questionable, and the actual value of the index for the Lake Washington stock may well be below the 60.0% standard. In addition, while no PSC agreed escapement goal exists for the Lake Washington stock, the predicted escapement is well above the low abundance floor of 200 currently used by the state and tribal co-managers. For these reasons, the STT does not believe that the predicted index for the Lake Washington stock should be cause for concern. The ISBM indices reported for all other stocks are either below the general obligation or the stocks are projected to meet their escapement goals, where projections are available.

COHO SALMON ASSESSMENT

Ocean coho harvest quotas are summarized in Table 4. Table 5 lists expected escapements and other key coho management criteria, including data relevant to meeting consultation standards for ESA-listed stocks. Expected coho harvest and incidental non-retention mortality are shown in Table 6. Table 7 provides a detailed accounting of impacts on LCR, OCN, and Rogue/Klamath (RK) hatchery coho (unmarked component) by fishery. Further details of the fishery impacts on stocks listed under the ESA can be found in Appendix A. Table 8 provides estimates of the percentage of marked coho expected to be encountered in mark-selective fisheries.

South of Cape Falcon

All natural coho stocks originating south of the Sixes River, Oregon have been listed under the Federal ESA. OCN coho are managed in accordance with the Salmon FMP and the OCN Coho Work Group 2000 report (adopted by the Council as "expert biological advice to help guide Council management of OCN coho"). For 2006, the Work Group report recommends the exploitation rate in marine and freshwater fisheries combined be no more than 15.0%, while the Salmon FMP allows up to a 20.0% exploitation rate. For Southern Oregon/Northern California Coastal (SONCC) coho, the NMFS ESA consultation standard requires that the ocean exploitation rate on unmarked RK hatchery stocks be no more than 13.0%. For the Central California Coastal (CCC) coho, the NMFS ESA consultation standard prohibits retention of coho in California ocean fisheries.

LCR natural coho were listed as threatened under the ESA in June 2005. LCR natural coho are also listed as endangered under the Oregon State ESA. Oregon has developed a management matrix for LCR natural coho that is conceptually equivalent to that used for OCN coho. For 2006, both spawner abundance and marine survival are in the "low" category resulting in a marine fishery exploitation rate limit of no more than 15.0% in the Oregon management matrix. Although the Biological Opinion for LCR natural coho was not finalized prior to Council adoption of 2006 management measures, the NMFS'

guidance letter dated March 6, 2006, specified a more conservative exploitation rate of no more than 15.0% in combined Council area fisheries and fisheries in the mainstem of the Columbia River. The marine exploitation rate in salmon fisheries under the Council's jurisdiction for LCR natural coho is projected to be 9.9% (Table 7). It is expected NMFS will issue a Biological Opinion prior to May 1, 2006.

Under the adopted management measures, the combined marine and freshwater OCN coho exploitation rate is projected to be 9.6% (Table 7). The number of OCN coho spawners in 2006 is projected to be 55,200 adults. This compares with 133,200 adults observed in 2005. The marine exploitation rate for RK hatchery coho is projected to be 5.2%. At present, there are no preseason spawner projections for either SONCC or CCC coho.

Ocean escapement of the early and late hatchery stocks of Columbia River coho are expected to be sufficient to meet hatchery egg-take goals (Table 5), although individual hatcheries may not meet late coho egg-take goals under the proposed combination of ocean and inside fisheries. Approximately 78% of Columbia River coho destined for areas above Bonneville Dam are anticipated to reach Bonneville Dam after allowance for ocean and in-river fisheries, compared to a requirement of 50%.

Coho retention is prohibited in commercial and recreational fisheries south of Cape Falcon, except for the mark-selective recreational fishery between Cape Falcon and the Oregon/California border with a quota of 20,000 marked coho. In addition to the recreational quota, the estimated non-retention (drop-off, plus hook-and-release) mortality for non-Indian ocean commercial and recreational fisheries in the area south of Cape Falcon is 3,400 and 8,600 coho, respectively (Table 6).

North of Cape Falcon

Coho fisheries north of Cape Falcon are constrained by management objectives and treaty-Indian obligations for individual stock management units. For 2006, the exploitation rate on OCN coho in all marine and freshwater fisheries combined is limited to 15.0% or less, while the exploitation rate on LCR natural coho in Council area marine fisheries and mainstem Columbia River commercial and recreational fisheries combined is limited to 15.0% or less. Additionally, ocean and Puget Sound fisheries were structured to constrain total exploitation rates on Interior Fraser coho to 10.0% or less in accordance with the provisions of the southern coho management plan adopted by the PSC in February 2002.

Ocean escapement of the early and late hatchery stocks of Columbia River coho are expected to be sufficient to meet hatchery egg-take goals (Table 5), although individual hatcheries may not meet late coho egg-take goals under the proposed combination of ocean and inside fisheries. Approximately 78% of Columbia River coho destined for areas above Bonneville Dam are anticipated to reach Bonneville Dam after allowance for ocean and in-river fisheries, compared to a requirement of 50%.

Under the adopted management measures, the combined marine and freshwater OCN coho exploitation rate is projected to be 9.6% (Table 7). The number of OCN coho spawners in 2006 is projected to be 55,200 adults. This compares with 133,200 adults observed in 2005. The marine exploitation rate in salmon fisheries under the Council's jurisdiction for LCR natural coho is projected to be 9.9% (Table 7).

Ocean escapement levels for all natural coho stocks north of the Columbia River are expected to meet or exceed their long-term spawner escapement goals and comply with the management objectives adopted by state and tribal co-managers. The actual spawner escapements will be determined by the combined impact of ocean and inside fisheries. Management objectives in 2006 for these stocks have been agreed to by state and tribal co-managers under the terms of U.S. District Court orders.

The expected exploitation rate from Council area ocean fisheries is 3.44% on Interior Fraser coho, compared to 5.3% projected in 2005. The expected total exploitation rate by all U.S. fisheries on naturally spawning Interior Fraser coho is 9.2% in 2006 under Council adopted management measures.

SOCIOECONOMIC IMPACTS OF PROPOSED OPTIONS

This section provides economic impact estimates for expected non-Indian fishing activities under the Council's proposed ocean commercial and recreational fishery regulations. Economic costs and benefits associated with changes in levels of ocean escapement (costs and benefits of spawner escapement and inside harvest) are not included. No attempt is made to estimate the economic value of the treaty-Indian commercial catch, although these landings do generate personal income for the local and state economies. The procedures and methods used to analyze the economic impacts follow those documented in previous preseason reports and the annual reviews of ocean salmon fisheries.

The economic effects of the proposed regulations for non-Indian fisheries are shown in Tables 9 and 10. Table 9 shows troll impacts expressed in terms of estimates of potential exvessel value. Table 10 shows recreational impacts in terms of trips generated and state level personal income impacts generated in communities through activities associated with the recreational fishery under each option. The exvessel values provided for the troll fishery in Table 9 and personal income impact values provided for the recreational fishery in Table 10 are not directly comparable. Figures 3 and 4 show estimated state level income impacts generated in coastal communities for both the troll and recreational options compared to historic impacts in real (inflation adjusted) dollars.

Going back about two-and-half decades (back through 1979), the height of the salmon fishery occurred in 1979 when the combined state level personal income impacts associated with the non-Indian commercial and recreational fishery were \$317 million dollars (inflation adjusted). This was just before imposition of the Boldt decisions which resulted in significant cutbacks in non-Indian fishing in the area north of Cape Falcon. The lowest total on record was 1998 with \$35 million in combined state level personal income impacts.

For the area south of Cape Falcon, which faces significant reductions in fisheries to protect KRFC, the height of the fishery for 1979 through 2005 occurred in 1988, when the combined state level impacts were \$243 million (inflation adjusted). The average over the entire period was \$92 million (inflation adjusted). Over the last 5 years (2001 through 2005), the average state level income impacts were \$64 million (inflation adjusted; \$37.5 million in the commercial fishery and \$26.2 million in the recreational fishery) and the state level income impacts associated with the 2005 fishery were \$58 million (\$35.6 million in the commercial fishery and \$22.2 million in the recreational fishery). For 2006, the south of Cape Falcon income impacts are projected to be \$11.9 million for the commercial fishery and \$21.1 million for the recreational fishery, under the Council-adopted management measures. The lowest combined commercial and recreational income impacts for the area south of Cape Falcon occurred in 1998 with \$33 million (inflation adjusted).

For the area north of Cape Falcon, the height of the fishery between 1979 and 2005 occurred in 1979, when the combined state level impacts associated with the non-Indian commercial and recreational fisheries were \$100 million (inflation adjusted). The average over the entire period was \$21 million (inflation adjusted). Over the last 5 years (2001 through 2005), the average state level income impacts were \$13 million (inflation adjusted; \$3.0 million in the commercial fishery and \$10.5 million in the recreational fishery) and the state level income impacts associated with the 2005 fishery were \$12 million (\$2.8 million in the commercial fishery and \$8.8 million in the recreational fishery). For 2006, the north of Cape Falcon income impacts are projected to be \$2.2 million for the commercial fishery and \$6.1 million for the recreational fishery, under the Council-adopted management measures. The lowest

combined non-Indian commercial and recreational income impacts for the area north of Cape Falcon occurred in 1994 with less than \$0.1 million (inflation adjusted).

In general, income impact estimates provide information on the amount of income associated with a particular activity. Reductions in income impacts may, but do not necessarily, reflect net losses to a community but likely correlate with losses to those businesses and individuals with income dependence on the activity. Additionally, in some cases, reductions in ocean harvest may result in either greater inside fishing opportunity or escapement which may contribute to future production, depending on the carrying capacity of the system to which the stocks are escaping.

The near term effect of additional harvest of Klamath River fall Chinook will depend on escapements projected for 2007 and 2008 (whether they are near or below the escapement floor). If projected escapements for 2007 and 2008 end up near or below the floor, then 2006 harvest may exacerbate restrictions required in those years, as compared to what might be the case with higher abundance levels. The long-term economic effect of reducing spawning escapement to levels below the escapement floor will depend on the biological assessment of whether ocean and Klamath Basin conditions are able to support the kind of stock rebound that has been observed in previous years.

In past years, the KMZ has benefited from the landing of commercial fish caught in the area between Cape Falcon and Humbug Mountain. In 2005, it appears that just under 10% of the fish caught off the central Oregon coast (Cape Falcon to Humbug Mountain) were landed in a KMZ port. These landings accounted for the large majority of the landings in the KMZ, primarily in the Brookings, Oregon port area. The exvessel value of these landings was approximately \$600,000 and the estimated income impacts approximately \$1.1 million. Proposed restrictions on out-of-area landings for catch taken from the Cape Falcon to Humbug Mountain area were modified in the Council-adopted management measures to allow fish caught between Cape Falcon and Humbug Mountain to be landed at any Oregon port, rather than being restricted to the Cape Falcon to Humbug Mountain area.

Vessel trip limits specified in terms of number of fish are being recommended for all commercial fisheries north of Point Sur, California. North of Cape Falcon these limits will assist in quota monitoring and the distribution of fish among the fleet. For the fisheries between Cape Falcon and Point Sur, these limits are intended to help ensure that harvest does not exceed what is expected under the recommended season structure. This represents the extension of a management measure which, over the last five years, has been used only in the north of Cape Falcon and KMZ fisheries (with the exception of 2003 when a 150 Chinook per day limit was applied in the Horse Mountain to Point Arena area).

Vessel trip limits reduce vessel profits and related personal income more than proportionally relative to the reduction in catch and exvessel value. Once a vessel is out on the fishing grounds, the marginal costs of catching additional fish is low relative to average harvesting costs. The personal income depicted in Figure 3 is based on average personal income per fish. The figure does not take into account the reductions resulting from loss of opportunity to catch additional fish at low marginal costs, nor is account taken of the effects of potential highgrading to take larger fish. Larger fish bring more revenue both because they weigh more and because larger fish bring a higher price per pound. At this time, information is not available to provide a complete quantitative assessment of the economic effects of the vessel limits. Qualitatively it can be noted that these limits will have a downward influence on personal income, not reflected in the Figure 3, and that the 75 fish per week limits may be more restrictive than the 30 to 40 fish per day limits often used in the KMZ management area (depending on the number of trips per week and typical trip durations for a particular vessel in the KMZ). North of Cape Falcon, trips are often specified "per open period" and those open periods are often a certain number of days per calendar week. In the 2005 fishery, the "per open period" limits for the great majority of the season ran from 75 to

125 fish. In 2004, the majority of the season in this area was fished under “per open period” limits of 100 to 125 fish (note: 5 days in early May were fished with no catch limits). The proposed 75 fish per week limits may be more constraining than these other recent year trip limits.

In past years, the North of Cape Falcon recreational fishery has generally been limited by the season duration or coho quota. It appears that for the 2006, effort out of Westport and the Columbia River will be limited by Chinook harvest guidelines, and effort out of Neah Bay and La Push may be limited by the coho quota. Average 2006 angler Chinook success rates have been applied to Chinook harvest guidelines to estimate the number of trip for Westport and the Columbia River, and success rates for coho have been applied to the coho quotas for Neah Bay and La Push.

TABLE 1. Commercial troll management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 1 of 5)

North of Cape Falcon	
A. SEASON OPTION DESCRIPTIONS	
Supplemental Management Information	
<p>1. Overall non-Indian TAC: 65,000 Chinook and 80,000 marked coho. Trade: 6,000 coho to the recreational fishery in exchange for 1,500 Chinook.</p> <p>2. Non-Indian commercial troll TAC: 34,000 Chinook and 6,800 marked coho.</p> <p>3. Treaty Indian commercial ocean troll quotas of: 42,200 Chinook (22,700 in May and June; 19,500 for all-salmon season July through Sept. 15 with no rollover allowed from Chinook season); and 37,500 coho.</p>	
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> May 1 through earlier of June 30 or 22,450 Chinook quota. <p>Open May 1-2 with a 75 Chinook per vessel landing and possession limit for the two-day open period; beginning May 6, open Saturday through Tuesday with an 80 Chinook possession and landing limit for each four-day open period. If insufficient quota remains to prosecute openings prior to the June 24-27 open period, the remaining quota will be provided for a June 27-30 open period with a per vessel landing and possession limit to be determined inseason. All salmon except coho (C.7). Cape Flattery and Columbia Control Zones closed (C.5). See gear restrictions and definitions (C.2, C.3). Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Under state law, vessels must report their catch on a state fish receiving ticket. Vessels fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon must notify ODFW within one hour of delivery or prior to transport away from the port of landing by calling 541-867-0300 Ext. 271. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>	
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> July 15 through earlier of September 15 or 11,550 preseason Chinook guideline (C.8) or a 6,800 marked coho quota (C.8.d). Cape Flattery and Columbia Control Zones closed (C.5). <p>Open Saturday through Tuesday July 15 through August 1. All salmon; landing and possession limit of 35 Chinook and 35 marked coho per vessel per four day open period (C.2, C.3). Open August 5 through September 15; Saturday through Monday. All Salmon except no chum retention north of Cape Alava, Washington in August and September (C.7); landing and possession limit of 30 Chinook and 40 marked coho per vessel per three day open period. Gear restricted to plugs 6 inches (15.2 cm) or longer (C.2, C.3). Vessels must land and deliver their fish within 24 hours of any closure of this fishery. Under state law, vessels must report their catch on a state fish receiving ticket. Vessels fishing north of Leadbetter Point must land and deliver their fish within the area and north of Leadbetter Point. Vessels fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi, Oregon. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon must notify ODFW within one hour of delivery or prior to transport away from the port of landing by calling 541-867-0300 Ext. 271. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>	

TABLE 1. Commercial troll management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 2 of 5)

A. SEASON OPTION DESCRIPTIONS	
South of Cape Falcon	
Supplemental Management Information	
<p>1. Klamath River recreational fishery allocation: Non-retention mortality of 300 adult fall Chinook associated with fisheries for other anadromous species.</p> <p>2. Non-Indian commercial troll Klamath fall Chinook impact allocation 56% Oregon:44% California.</p> <p>3. Tribal allocation equal to non-Indian catch</p>	
<p>Cape Falcon to Florence South Jetty (Newport)</p> <ul style="list-style-type: none"> June 4-7, 11-14, 18-21, 25-28; July 9-11, 16-18, 23-25; August 1-3; September 17-30; October 17-31 (C.9). <p>All salmon except coho (C.7). Landing and possession limit of 75 Chinook per vessel per calendar week during June, July, and August; 50 Chinook per calendar week September and October. Chinook 28 inch total length minimum size limit (B). All vessels fishing in the area must land their fish in the State of Oregon. See gear restrictions and definitions (C.2, C.3) and Oregon State regulations for a description of special regulations at the mouth of Tillamook Bay.</p> <p>In 2007, the season will open March 15 for all salmon except coho, with a 28 inch total length Chinook minimum size limit. This opening could be modified following Council review at its March 2007 meeting.</p>	
<p>Florence South Jetty to Humbug Mt. (Coos Bay)</p> <ul style="list-style-type: none"> Closed (C.9) <p>In 2007, the season will open March 15 for all salmon except coho, with a 28 inch Chinook minimum size limit. This opening could be modified following Council review at its March 2007 meeting.</p>	
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> Closed (C.9) <p>In 2007, the season will open March 15 for all salmon except coho, with a 28 inch Chinook minimum size limit. This opening could be modified following Council review at its March 2007 meeting.</p>	
<p>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <p>Closed (C.9)</p>	
<p>Humboldt South Jetty to Horse Mt.</p> <p>Closed (C.9)</p>	
<p>Horse Mt. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> September 1 through the earlier of September 15 or a Chinook quota of 4,000 (C.9). <p>All salmon except coho. Landing and possession limit of 30 Chinook per vessel per day. Fish caught in the area must be landed in the area (C.1). Chinook minimum size limit 27 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open March 15 for all salmon except coho, with a 27 inch total length Chinook minimum size limit (B). This opening could be modified following Council review at its March 2007 meeting.</p>	
<p>Pt. Arena to Pigeon Pt. (San Francisco)</p> <ul style="list-style-type: none"> July 26-31; August 1-31; September 1 through the earlier of September 30 or a Chinook quota of 20,000 (C.9). <p>All salmon except coho. Landing and possession limit of 75 Chinook per vessel per calendar week during July and August; fish must be landed in an area south of Horse Mt. In September, fish caught in the area must be landed in the area, or in an adjacent closed area, if that area has been closed for at least 96 hours (C.1). Chinook minimum size limit 28 inches total length in July and August; 27 inches in September (B). See gear restrictions and definitions (C.2, C.3).</p>	
<p>Pt. Reyes to Pt. San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> October 2-6; 9-13. <p>Open Monday through Friday. All salmon except coho. All fish caught in the area must be landed in the area between Pt. Arena and Pigeon Point (C.1). Chinook minimum size limit 26 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>	

TABLE 1. Commercial troll management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 3 of 5)

A. SEASON OPTION DESCRIPTIONS					
Pigeon Pt. to Pt. Sur (Monterey)					
<ul style="list-style-type: none"> May 1-31; July 26-31; August 1-31; September 1-30 (C.9). All salmon except coho. Landing and possession limit of 75 Chinook per vessel per calendar week during May, July, and August; fish must be landed in an area south of Point Arena. In September, fish must be landed in an area south of Pigeon Point, or in an adjacent closed area, if that area has been closed for at least 96 hours (C.1). Chinook minimum size limit 28 inches total length in July and August; 27 inches in May and September (B). See gear restrictions and definitions (C.2, C.3).					
Pt. Sur to U.S./Mexico Border (Monterey)					
<ul style="list-style-type: none"> May 1 through September 30 (C.9). All salmon except coho. Fish must be landed south of Pigeon Point (C.1). Chinook minimum size limit 27 inches total length in May, June and September; 28 inches total length in July and August (B). See gear restrictions and definitions (C.2, C.3).					
B. MINIMUM SIZE (Inches) (See C.1)					

Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	28.0	21.5	16.0	12.0	None
Cape Falcon to OR/CA Border	28.0	21.5	-	-	None
OR/CA Border to Horse Mt.	-	-	-	-	-
Horse Mt. To Pt. Arena	27.0	20.5	-	-	None
Pt. Arena to U.S./Mexico Border					
Prior to July 1 and September 1-30	27.0	20.5	-	-	None
July 1-August 31	28.0	21.5	-	-	None
October 3-14	26.0	19.5	-	-	None

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size, landing/possession limit, or other special requirements for the area being fished and the area in which they are landed if the area is open. Salmon may be landed in an area that has been closed more than 96 hours only if they meet the minimum size, landing/possession limit, or other special requirements for the area in which they were caught. Salmon may be landed in an area that has been closed less than 96 hours only if they meet the minimum size, landing/possession limit, or other special requirements for the areas in which they were caught and landed.

States may require fish landing/receiving tickets be kept on board the vessel for 90 days after landing to account for all previous salmon landings.

C.2. Gear Restrictions:

- Single point, single shank, barbless hooks are required in all fisheries.
- Cape Falcon, Oregon, to the OR/CA border: No more than 4 spreads are allowed per line.
- OR/CA border to U.S./Mexico border: No more than 6 lines are allowed per vessel, and barbless circle hooks are required when fishing with bait by any means other than trolling.

C.3. Gear Definitions:

Trolling defined: Fishing from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.

Troll fishing gear defined: One or more lines that drag hooks behind a moving fishing vessel. In that portion of the fishery management area (FMA) off Oregon and Washington, the line or lines must be affixed to the vessel and must not be intentionally disengaged from the vessel at any time during the fishing operation.

Spread defined: A single leader connected to an individual lure or bait.

Circle hook defined: A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.

C.4. Transit Through Closed Areas with Salmon on Board: It is unlawful for a vessel to have troll or recreational gear in the water while transiting any area closed to fishing for a certain species of salmon, while possessing that species of salmon; however, fishing for species other than salmon is not prohibited if the area is open for such species, and no salmon are in possession.

TABLE 1. Commercial troll management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 4 of 5)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)

C.5. Control Zone Definitions:

- a. *Cape Flattery Control Zone* - The area from Cape Flattery (48°23'00" N. lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to Cape Alava (48°10'00" N. lat.) and east of 125°05'00" W. long.
- b. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long.), and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- c. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and on the south, by 41°26'48" N. lat. (approximately six nautical miles south of the Klamath River mouth).

C.6. Notification When Unsafe Conditions Prevent Compliance with Regulations: If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate amount of salmon (by species) on board, and the estimated time of arrival.

C.7. Incidental Halibut Harvest: During authorized periods, the operator of a vessel that has been issued an incidental halibut harvest license may retain Pacific halibut caught incidentally in Area 2A while trolling for salmon. Halibut retained must be no less than 32 inches in total length, measured from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail, and must be landed with the head on. License applications for incidental harvest must be obtained from the International Pacific Halibut Commission (phone: 206-634-1838). Applicants must apply prior to April 1 of each year. Incidental harvest is authorized only during May and June troll seasons and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825). ODFW and Washington Department of Fish and Wildlife (WDFW) will monitor landings. If the landings are projected to exceed the 41,464 pound preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to close the incidental halibut fishery.

Beginning May 1, license holders may land no more than one Pacific halibut per each three Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).

A "C-shaped" yelloweye rockfish conservation area is an area to be avoided for salmon trolling. NMFS and the Council request salmon trollers voluntarily avoid this area in order to protect yelloweye rockfish. The area is defined in the Pacific Council Halibut Catch Sharing Plan in the North Coast subarea (Washington marine area 3), with the following coordinates in the order listed:

48°18' N. lat.; 125°18' W. long.;
 48°18' N. lat.; 124°59' W. long.;
 48°11' N. lat.; 124°59' W. long.;
 48°11' N. lat.; 125°11' W. long.;
 48°04' N. lat.; 125°11' W. long.;
 48°04' N. lat.; 124°59' W. long.;
 48°00' N. lat.; 124°59' W. long.;
 48°00' N. lat.; 125°18' W. long.;
 and connecting back to 48°18' N. lat.; 125°18' W. long.

C.8. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- a. Chinook remaining from the May through June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline on a fishery impact equivalent basis.
- b. NMFS may transfer fish between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the areas' representatives on the SAS.
- c. At the March 2007 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2006).
- d. If retention of unmarked coho is permitted in the area from the U.S./Canada border to Cape Falcon, Oregon, by inseason action, the allowable coho quota will be adjusted to ensure preseason projected mortality of critical stocks is not exceeded.

TABLE 1. Commercial troll management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 5 of 5)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)

C.9. Consistent with Council management objectives:

- a. the State of Oregon may establish additional late-season, Chinook-only fisheries in state waters.
- b. the State of California may establish limited fisheries in selected state waters.

Check state regulations for details.

C.10. For the purposes of California Department of Fish and Game (CDFG) Code, Section 8232.5, the definition of the KMZ for the ocean salmon season shall be that area from Humbug Mt., Oregon, to Horse Mt., California.

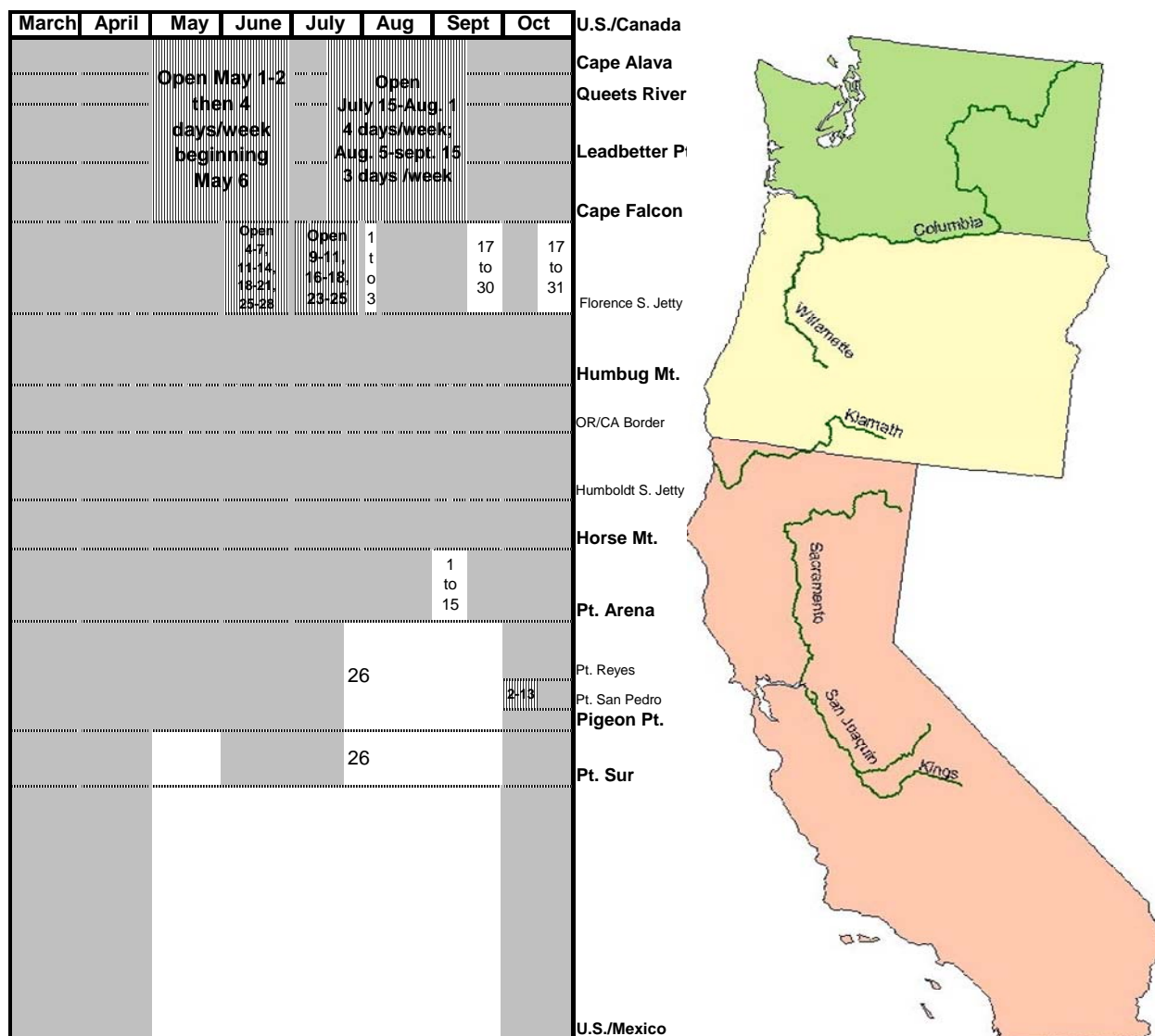


FIGURE 1. Council-adopted non-Indian commercial salmon seasons for 2006. Dates are the first or last days of the month unless otherwise specified.

TABLE 2. Recreational management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 1 of 4)
A. SEASON OPTION DESCRIPTIONS
North of Cape Falcon
Supplemental Management Information
<p>1. Overall non-Indian TAC: 65,000 Chinook and 80,000 coho marked with a healed adipose fin clip (marked). Trade: 1,500 Chinook to the commercial fishery in exchange for 6,000 coho.</p> <p>2. Recreational TAC: 31,000 Chinook and 73,200 marked coho.</p> <p>3. Area 4B add-on fishery opens upon ocean closure with a quota of 3,000 marked coho and Chinook non-retention (C.5).</p> <p>4. Buoy 10 fishery opens Aug. 1 with an expected landed catch of 8,300 marked coho in August and September.</p>
<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> June 30 through earlier of Sept. 17 or 7,058 marked coho subarea quota with a subarea guideline of 3,200 Chinook (C.6). Tuesday through Saturday. All salmon, except no chum retention August 1 through Sept. 18, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit) (B). All retained coho must be marked. See gear restrictions (C.2). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.d) during Council managed ocean fishery. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.4).
<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 30 through earlier of September 17 or 1,889 marked coho subarea quota with a subarea guideline of 1,300 Chinook. Tuesday through Saturday; Sep. 23 through Oct. 8 or 50 marked coho quota or 100 Chinook quota: In the area north of 47° 50'00" N. Lat. and south of 48°00'00" N. Lat. (C.5); Seven days per week (C.6). <p>All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit) (B). All retained coho must be marked. See gear restrictions (C.2). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.4).</p>
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> July 3 through earlier of September 17 or 27,603 marked coho subarea quota with a subarea guideline of 18,100 Chinook (C.6). <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit) (B). All retained coho must be marked. See gear restrictions and definitions (C.2, C.3). Beginning August 1, Grays Harbor Control Zone closed (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> July 3 through earlier of September 30 or 36,600 marked coho subarea quota with a subarea guideline of 8,300 Chinook (C.6). <p>Sunday through Thursday. All salmon, two fish per day, no more than one of which may be a Chinook (Chinook 24-inch total length minimum size limit) (B). All retained coho must be marked. See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.a). Closed between Cape Falcon and Tillamook Head beginning Aug. 1. Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>

TABLE 2. **Recreational** management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 2 of 4)

A. SEASON OPTION DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<p>1. Klamath River recreational fishery allocation: Non-retention mortality of 300 adult fall Chinook associated with fisheries for other anadromous species.</p> <p>2. KMZ ocean recreational fishery share: 8.8%.</p> <p>3. Tribal allocation equal to non-Indian catch.</p>
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> Except as provided below during the selective fishery, the season will be March 15 through October 31 (C.6). <p>All salmon except coho. Two fish per day (C.1). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> Mark selective fishery: Cape Falcon to OR/CA Border <p>June 17 through earlier of July 31 or a landed catch of 20,000 marked coho, except that the area south of Humbug Mt. will close July 5-31, concurrent with the KMZ season listed below.</p> <p>If quota remains, September 1 through the earlier of September 6 or a landed catch of any remaining quota from the June 17 through July 31 fishery.</p> <p>Open seven days per week, all salmon, two fish per day (C.1). All retained coho must be marked with a healed adipose fin clip. Fishing in the Stonewall Bank groundfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (see 70 FR 20304, and call the halibut fishing hotline 1-800-662-9825 for additional dates) (C.3, C.4.e). Open days may be adjusted inseason to utilize the available quota (C.5). All salmon except coho seasons reopen the day following the closure of the mark selective coho fishery.</p> <p>In 2007, the season will open March 15 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>
<p>Humbug Mt. to Horse Mt. (Klamath Management Zone)</p> <ul style="list-style-type: none"> Except as provided above during the selective fishery, the season will be May 15 through July 4; and September 1-6 (C.6). <p>All salmon except coho, except as noted above in the coho mark selective fishery. Chinook minimum size limit 24 inches total length (B). Seven days per week, two fish per day (C.1). See gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed in August (C.4.c). See California State regulations for additional closures adjacent to the Smith, Klamath, and Eel rivers.</p>
<p>Horse Mt. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> February 18 through May 31; June 1-4, 7-11, 14-18, 21-25, 28-30; July 1-9, 15-16, 22-23, 26-31; August 1 through November 12 (C.6). <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, season opens February 17 (nearest Saturday to February 15) for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>
<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> April 1-30 inside 3 nm (state waters only; C.6). May 1 through June 11; June 14 through July 9; July 12 through November 12 (C.6). <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open April 7 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>
<p>Pigeon Point to Pt. Sur (Monterey)</p> <ul style="list-style-type: none"> April 1-30 inside 3 nm (state waters only; C.6). May 1 through September 24 (C.6). <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open April 7 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>
<p>Pt. Sur to U.S./Mexico Border (Monterey)</p> <ul style="list-style-type: none"> April 1 through September 24 (C.6). <p>All salmon except coho. Two fish per day (C.1). Chinook minimum size limit 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2007, the season will open April 7 for all salmon except coho, two fish per day (C.1), Chinook minimum size limit of 20 inches total length (B), and the same gear restrictions as in 2006 (C.2, C.3).</p>

TABLE 2. Recreational management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 3 of 4)

B. MINIMUM SIZE (Inches) (See C.1)

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon	24.0	16.0	None
Cape Falcon to Humbug Mt.	20.0	16.0	None
Humbug Mt. to Horse Mountain	24.0	-	None, except 20.0 off CA
Horse Mt. to U.S./Mexico Border	20.0	-	20.0

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Compliance with Minimum Size and Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught.

Ocean Boat Limits: Off the coast of Washington, Oregon, and California, each fisher aboard a vessel may continue to use angling gear until the combined daily limits of salmon for all licensed and juvenile anglers aboard has been attained (additional state restrictions may apply).

C.2. Gear Restrictions: All persons fishing for salmon, and all persons fishing from a boat with salmon on board, must meet the gear restrictions listed below for specific areas or seasons.

- a. U.S./Canada Border to Point Conception, California: No more than one rod may be used per angler; and single point, single shank, barbless hooks are required for all fishing gear. [Note: ODFW regulations in the state-water fishery off Tillamook Bay may allow the use of barbed hooks to be consistent with inside regulations.]
- b. Cape Falcon, Oregon, to Point Conception, California: Anglers must use no more than two single point, single shank, barbless hooks.
- c. Horse Mt., California, to Point Conception, California: Single point, single shank, barbless circle hooks (below) must be used if angling with bait by any means other than trolling, and no more than two such hooks shall be used. When angling with two hooks, the distance between the hooks must not exceed five inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.

C.3. Gear Definitions:

- a. *Recreational fishing gear defined:* Angling tackle consisting of a line with no more than one artificial lure or natural bait attached. Off Oregon and Washington, the line must be attached to a rod and reel held by hand or closely attended; the rod and reel must be held by hand while playing a hooked fish. No person may use more than one rod and line while fishing off Oregon or Washington. Off California, the line must be attached to a rod and reel held by hand or closely attended. Weights directly attached to a line may not exceed four pounds (1.8 kg). While fishing off California north of Point Conception, no person fishing for salmon, and no person fishing from a boat with salmon on board, may use more than one rod and line. Fishing includes any activity which can reasonably be expected to result in the catching, taking, or harvesting of fish.
- b. *Trolling defined:* Angling from a boat or floating device that is making way by means of a source of power, other than drifting by means of the prevailing water current or weather conditions.
- c. *Circle hook defined:* A hook with a generally circular shape and a point which turns inward, pointing directly to the shank at a 90° angle.

TABLE 2. Recreational management measures adopted by the Council for 2006 non-Indian ocean salmon fisheries. (Page 4 of 4)

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)

C.4. Control Zone Definitions:

- a. *Columbia Control Zone*: An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long. and then along the north jetty to the point of intersection with the Buoy #10 line; and on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 36'00" N. lat., 124°10'51" W. long.).
- c. *Klamath Control Zone*: The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately six nautical miles north of the Klamath River mouth); on the west, by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south, by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
- d. *The Bonilla-Tatoosh Line*: A line running from the western end of Cape Flattery to Tatoosh Island Lighthouse (48°23'30" N. lat., 124°44'12" W. long.) to the buoy adjacent to Duntze Rock (48°28'00" N. lat., 124°45'00" W. long.), then in a straight line to Bonilla Point (48°35'30" N. lat., 124°43'00" W. long.) on Vancouver Island, British Columbia.
- e. *Stonewall Bank Groundfish Conservation Area*: The area defined by the following coordinates in the order listed:
 44°37.46' N. lat.; 124°24.92' W. long.;
 44°37.46' N. lat.; 124°23.63' W. long.;
 44°28.71' N. lat.; 124°21.80' W. long.;
 44°28.71' N. lat.; 124°24.10' W. long.;
 44°31.42' N. lat.; 124°25.47' W. long.;
 and connecting back to 44°37.46' N. lat.; 124°24.92' W. long.

C.5. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines, and season duration. In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- a. Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
- b. Coho may be transferred inseason among recreational subareas north of Cape Falcon on an impact neutral basis to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Council's SAS recreational representatives north of Cape Falcon.
- c. Chinook and coho may be transferred between the recreational and commercial fisheries north of Cape Falcon on an impact neutral basis if there is agreement among the representatives of the SAS.
- d. If retention of unmarked coho is permitted in the area from the U.S./Canada border to Cape Falcon, Oregon, by inseason action, the allowable coho quota will be adjusted to ensure preseason projected mortality of critical stocks is not exceeded.

C.6. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the States of Washington and Oregon, and California may establish limited seasons in state waters. Oregon State-water fisheries are limited to Chinook salmon. Check state regulations for details.

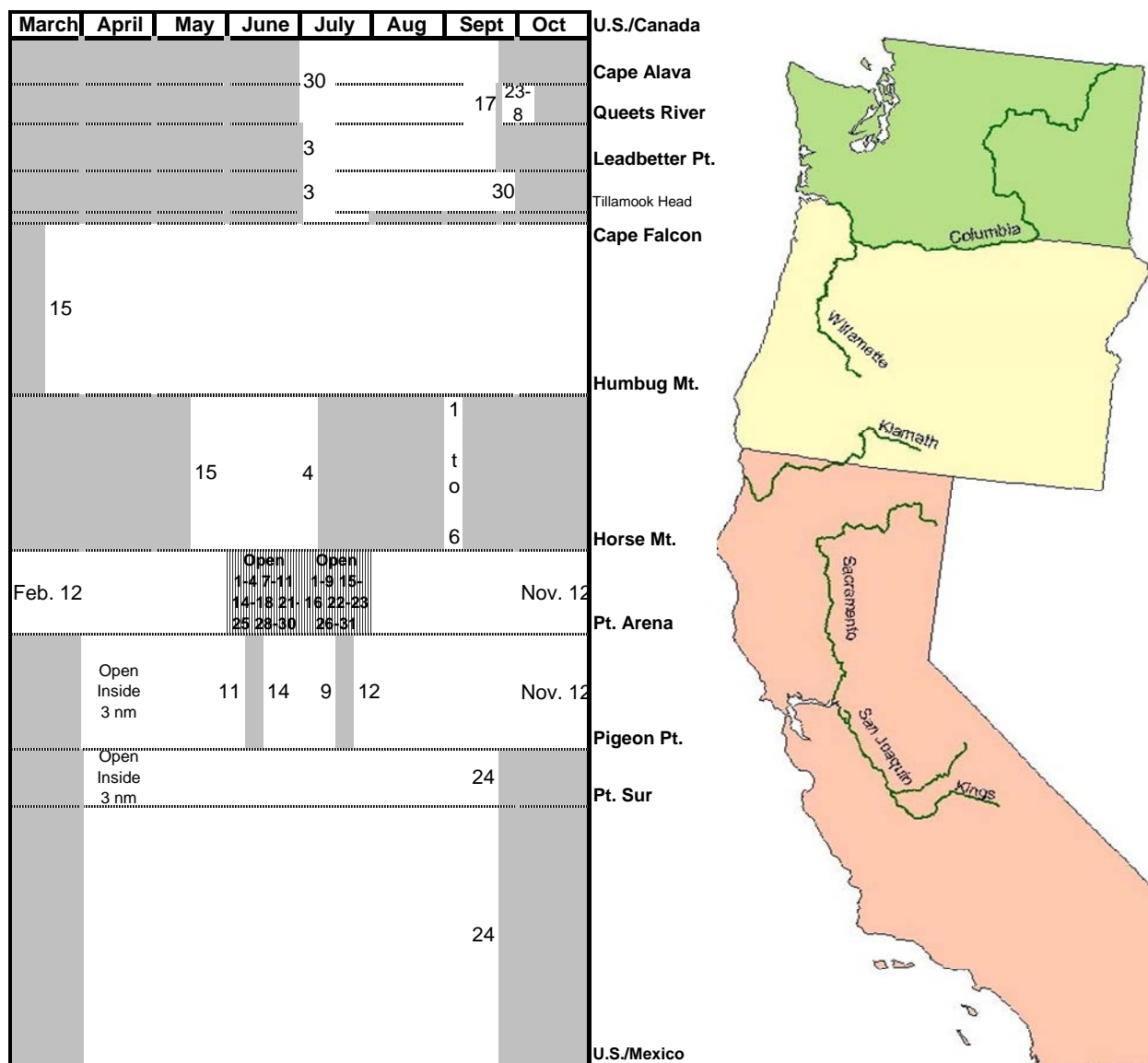


FIGURE 2. Council-adopted recreational salmon seasons for 2006. Dates are the first or last days of the month unless otherwise specified.

TABLE 3. Treaty Indian ocean troll management measures adopted by the Council for 2006 ocean salmon fisheries. (Page 1 of 1)

A. SEASON OPTION DESCRIPTIONS					
Supplemental Management Information					
1. Overall Treaty-Indian TAC: 42,200 Chinook and 37,500 coho.					
U.S./Canada Border to Cape Falcon • May 1 through the earlier of June 30 or 22,700 Chinook quota. All salmon except coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish cannot be transferred into the later all-salmon season. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season. See size limit (B) and other restrictions (C). • July 1 through the earlier of September 15, or 19,500 preseason Chinook quota, or 37,500 coho quota. All salmon. See size limit (B) and other restrictions (C).					
B. MINIMUM SIZE (Inches) (See C.1)					

Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	24.0	18.0	16.0	12.0	None

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Tribe and Area Boundaries. All boundaries may be changed to include such other areas as may hereafter be authorized by a Federal court for that tribe's treaty fishery.

S'KLALLAM - Washington State Statistical Area 4B (All)

MAKAH - Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.

QUILEUTE - That portion of the FMA between 48°07'36" N. lat. (Sand Pt.) and 47°31'42" N. lat. (Queets River) and east of 125°44'00" W. long.

HOH - That portion of the FMA between 47°54'18" N. lat. (Quillayute River) and 47°21'00" N. lat. (Quinault River) and east of 125°44'00" W. long.

QUINAULT - That portion of the FMA between 47°40'06" N. lat. (Destruction Island) and 46°53'18"N. lat. (Point Chehalis) and east of 125°44'00" W. long

C.2 Gear restrictions

- Single point, single shank, barbless hooks are required in all fisheries.
- No more than 8 fixed lines per boat.
- No more than four hand held lines per person in the Makah area fishery (Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.)

C.3 Quotas

- The quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1 through September 15.
- The Makah encounter rate study will occur between May 1 and September 15. Salmon taken in the study by treaty Indian vessels will be counted towards the overall treaty Indian troll quota.
- The Quileute Tribe will continue a ceremonial and subsistence fishery during the time frame of September 15 through October 15 in the same manner as in 2004 and 2005. Fish taken during this fishery are to be counted against treaty troll quotas established for the 2006 season (estimated harvest during the October ceremonial and subsistence fishery: 100 Chinook; 200 coho).

C.4 Area Closures

- The area within a six nautical mile radius of the mouths of the Queets River (47°31'42" N. lat.) and the Hoh River (47°45'12" N. lat.) will be closed to commercial fishing.
- A closure within two nautical miles of the mouth of the Quinault River (47°21'00" N. lat.) may be enacted by the Quinault Nation and/or the State of Washington and will not adversely affect the Secretary of Commerce's management regime.

TABLE 4. Chinook and coho harvest quotas and guidelines (*) for 2006 ocean salmon fishery management measures adopted by the Council. (Page 1 of 1)

Fishery or Quota Designation	Chinook	Coho
TREATY INDIAN OCEAN TROLL ^{a/}		
U.S./Canada Border to Cape Falcon (All Except Coho)	22,700	-
U.S./Canada Border to Cape Falcon (All Species)	19,500	37,500
Subtotal Treaty Indian Ocean Troll	42,200	37,500
NON-INDIAN COMMERCIAL TROLL		
U.S./Canada Border to Cape Falcon (All Except Coho)	22,450	-
U.S./Canada Border to Cape Falcon (All Species) ^{c/}	11,550	6,800
Subtotal Non-Indian Commercial Troll	34,000	6,800
RECREATIONAL ^{b/}		
U.S./Canada Border to Cape Alava	3,200 *	7,058 ^{c/}
Cape Alava to Queets River	1,400 *	1,939
Queets River to Leadbetter Pt.	18,100 *	27,603
Leadbetter Pt. to Cape Falcon ^{d/}	8,300 *	36,600
Subtotal Recreational	31,000	73,200
TOTAL NORTH OF CAPE FALCON	107,200	117,500
COMMERCIAL TROLL (all except coho)		
Horse Mt. to Pt. Arena (Sept.)	4,000	-
Pt. Arena to Pigeon Pt. (Sept.)	20,000	-
Subtotal Troll	24,000	-
RECREATIONAL		
Cape Falcon to Oregon/California Border ^{b/}	-	20,000
TOTAL SOUTH OF CAPE FALCON	24,000	20,000

a/ For the Makah encounter rate study, legal sized fish retained in open periods will be included in the treaty Indian quota.

b/ The coho quota is a landed catch of coho marked with a healed adipose fin clip.

c/ Does not include Area 4B add on selective fishery of 3,000 coho marked with healed adipose fin clips.

d/ Does not include Buoy 10 fishery expected catch of 8,300 marked coho in August and September.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2006 ocean fishery management measures adopted by the Council.^{a/} (Page 1 of 3)

TABLE 3: Projected Key Stock Escapements (thousands of fish) or Management Criteria for 2006 Ocean Fishery Management Measures Adopted by the Council. (Page 1 of 6)			
Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria (Council Area Fisheries)		Spaw ner Objective or Other Comparative Standard as Noted
CHINOOK			
PUGET SOUND:			
Elw ha Summer/Fall	2.2%	≤10.0%	Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Dungeness Spring	2.1%	≤10.0%	Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Mid-Hood Canal Summer/Fall	8.9%	≤12.0%	Preterminal Southern U.S. CERC (NMFS ESA consultation standard)
Skokomish Summer/Fall	9.0%	≤15.0%	Preterminal Southern U.S. Rebuilding Exploitation Rate and
	1.230	≥1.200	Natural spaw ning escapement (NMFS ESA consultation standard)
Nooksack Spring	3.6%	≤7.0%	Southern U.S. CERC, not to exceed in four out of five years (NMFS ESA consultation standard)
	12.1%	≤60.0%	ISBM Index (PSC general obligation).
Skagit Summer/Fall	30.3%	≤50.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	25.8%	≤60.0%	ISBM Index (PSC general obligation).
Skagit Spring	18.4%	≤38.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	16.1%	≤60.0%	ISBM Index (PSC general obligation).
Stillaguamish Summer/Fall	12.2%	≤15.0%	Southern U.S. CERC (NMFS ESA consultation standard)
	49.2%	≤60.0%	ISBM Index (PSC general obligation).
Snohomish Summer/Fall	14.7%	≤15.0%	Southern U.S. CERC (NMFS ESA consultation standard)
	19.8%	≤60.0%	ISBM Index (PSC general obligation).
Lake Washington Summer/Fall	10.4%	≤15.0%	Preterminal Southern U.S. Rebuilding Exploitation Rate (NMFS ESA consultation standard)
	61.3%	≤60.0%	ISBM Index (PSC general obligation).
Green River Summer/Fall	10.4%	≤15.0%	Preterminal Southern U.S. Rebuilding Exploitation Rate and
	13.527	≥5.800	Natural spaw ning escapement (NMFS ESA consultation standard)
	36.1%	≤60.0%	ISBM Index (PSC general obligation).
White River Spring	19.7%	≤20.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Puyallup Summer/Fall	50.0%	≤50.0%	Total Rebuilding Exploitation Rate (NMFS ESA consultation standard)
Nisqually River Summer/Fall	1.752	≥1.100	Spaw ning escapement goal (NMFS ESA consultation standard)
WASHINGTON COAST:			
Hoko Fall	44.2%	≤60.0%	ISBM Index (PSC general obligation) for stocks not meeting escapement objective.
Quillayute Fall	67.3%	≤60.0%	ISBM Index (PSC general obligation) not applicable for 2006 because escapement objective met.
Hoh Fall	149.3%	≤60.0%	ISBM Index (PSC general obligation) not applicable for 2006 because escapement objective met.
Queets Fall	102.2%	≤60.0%	ISBM Index (PSC general obligation) not applicable for 2006 because escapement objective met.
Grays Harbor Fall	54.4%	≤60.0%	ISBM Index (PSC general obligation)

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2006 ocean fishery management measures adopted by the Council.^{ai} (Page 2 of 3)

TABLE 6: Projected Key Stock Escapements (thousands of fish) or management criteria for 2006 ocean fishery management measures adopted by the Council. (Page 2 of 6)			
Key Stock/Criteria	Projected Ocean Escapement ^{ai} or Other Criteria (Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted	
CHINOOK			
<u>COLUMBIA RIVER:</u>			
Columbia Upriver Brights	249.1	57.3	Minimum ocean escapement to attain 46.0 adults over McNary Dam, with normal distribution and no mainstem harvest.
	73.4%	≤60.0%	ISBM Index (PSC general obligation) not applicable because escapement objective met.
Deschutes River Fall	43.7%	≤60.0%	ISBM Index (PSC general obligation)
Mid-Columbia Brights	86.6	16.6	Minimum ocean escapement to attain 5.75 adults for Bonneville Hatchery and 2.0 for Little White Salmon Hatchery egg-take, assuming average conversion and no mainstem harvest.
Columbia Lower River Hatchery Tules	57.5	31.1	Minimum ocean escapement to attain 14.1 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.
Columbia Lower River Natural Tules ^{ci} (threatened)	47.2%	≤49.0%	ESA guidance met by a total adult equivalent fishery exploitation rate on Coweeman tules (NMFS ESA consultation standard).
Columbia Lower River Wild (threatened)	16.6 ^{ai} 186.1%	5.7	MSY spawner goal for North Lewis River fall chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	51.8	≤60.0%	ISBM Index (PSC general obligation) not applicable because escapement objective met.
		11.1	Minimum ocean escapement to attain 7.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) SRFI	64.3%	≤70.0%	Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation
<u>OREGON COAST:</u>			
Nehalem Fall	119.2%	≤60.0%	ISBM Index (PSC general obligation)
Siletz Fall	123.7%	≤60.0%	ISBM Index (PSC general obligation)
Siuslaw Fall	109.5%	≤60.0%	ISBM Index (PSC general obligation)
<u>CALIFORNIA :</u>			
Klamath River Fall	21.1	35.0	Minimum number of adult spawners to natural spawning areas.
Spawner reduction rate	35.2%	≤66.7%	Equals 11.4 (thousand) fewer adult natural spawners due to fishing.
Federally recognized tribal harvest	50.0%	50.0%	Equals 10.0 (thousand) adult fish for Yurok and Hoopa tribal fisheries.
Adult river mouth return	47.6	NA	Includes natural and hatchery returns.
Age 4 ocean harvest rate	11.5%	≤16.0%	NMFS ESA consultation standard for threatened California coastal chinook.
KMZ sport fishery share	8.8%	17.0%	2006 KFMC recommendation.
CA:OR troll fishery share	44:56	50:50	2006 KFMC recommendation.
River recreational fishery allocation	0.0%	15.0%	2005 California Fish and Game Commission specification; none specified for 2006. Equals 0.3 (thousand) adult fish catch and release mortality associated with other recreational inriver fisheries for anadromous species.
Sacramento River Winter (endangered)	yes	Recreational season between Point Arena and Pigeon Point shall open no earlier than the first Saturday in April and close no later than the second Sunday in November; the recreational season between Pigeon Point and the U.S./Mexico Border shall open no earlier than the first Saturday in April and close no later than the first Sunday in October. The minimum size limit shall be at least 20 inches total length. Commercial seasons between Point Arena and the U.S./Mexico border shall open no earlier than May 1 and close no later than September 30, with the exception of an October season conducted Monday through Friday between Point Reyes and Point San Pedro, which shall end no later than October 15. The minimum size limit shall be at least 26 inches total length. (NMFS ESA consultation standard).	
Sacramento River Fall	368.0	122.0-180.0	Sacramento River fall natural and hatchery adult spawners.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2006 ocean fishery management measures adopted by the Council.^{a/} (Page 3 of 3)

Key Stock/Criteria	Projected Ocean Escapement ^{b/} or Other Criteria	
	(Council Area Fisheries)	Spawner Objective or Other Comparative Standard as Noted
COHO		
Interior Fraser (Thompson River)	9.2%(3.4%)	≤10.0% Total exploitation rate for southern U.S. fisheries based on 2002 PSC coho agreement.
Skagit	36%(2.9%)	≤60.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement ^{c/}
	87.8	30.0 MSP level of adult spawners Identified in FMP.
Stillaguamish	40%(4.2%)	≤50.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement ^{c/}
	32.7	17.0 MSP level of adult spawners Identified in FMP.
Snohomish	39%(4.2%)	≤60.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement ^{c/}
	98.0	70.0 MSP level of adult spawners Identified in FMP.
Hood Canal	37%(2.8%)	≤65.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement ^{c/}
	46.4	21.5 MSP level of adult spawners Identified in FMP.
Strait of Juan de Fuca	11%(3.0%)	≤40.0% 2006 total exploitation rate ceiling based on 2002 PSC coho agreement ^{c/}
	23.5	12.8 MSP level of adult spawners Identified in FMP.
Quillayute Fall	13.0	6.3-15.8 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Hoh	5.6	2.0-5.0 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Queets Wild	7.1	5.8-14.5 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Grays Harbor	60.3	35.4 MSY adult spawner range (not annual target). Annual management objectives may be different and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders.
Lower Columbia River Natural (threatened)	9.9%	≤15.0% Council area and mainstem Columbia River fishery exploitation rate (NMFS ESA consultation standard). Value depicted is ocean fishery exploitation rate only.
Upper Columbia	78%	50% Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	182.7	38.7 Minimum ocean escapement to attain hatchery egg-take goal of 16.0 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	64.7	15.2 Minimum ocean escapement to attain hatchery egg-take goal of 9.7 late adult coho, with average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural	9.6%	≤15.0% Marine and freshwater fishery exploitation rate.
Northern California (threatened)	5.2%	≤13.0% Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Projections for coho assume fishery harvest rate scalar values derived from the 2005 post-season Coho FRAM, which employs post-season observed fishery impact levels and 2005 pre-season abundance forecasts. Assumptions for Canadian and Southeast Alaska chinook fisheries operating under aggregate abundance based management regimes are based on allowable catch levels determined under the 1999 PST chinook agreement and the 2006 calibration of the PSC Chinook Model.. The allowable catch levels are for an Alaska all-gear catch of 346,800, a Northern BC troll and Queen Charlotte Islands catch of 223,200, and a WCVI troll and outside sport catch of 160,400.

b/ Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area exploitation rates for Puget sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Exploitation rates for OCN coho include impacts of freshwater fisheries.

c/ Annual management objectives may be different than FMP goals, and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. Total exploitation rate includes Alaskan, Canadian, Council area, Puget Sound, and freshwater fisheries and is calculated as total fishing mortality divided by total fishing mortality plus spawning escapement.

d/ Includes minor contributions from East Fork Lewis River and Sandy River.

TABLE 6. Preliminary projections of Chinook and coho harvest impacts for 2006 ocean salmon fishery management measures adopted by the Council. (Page 1 of 1)

Area and Fishery	Catch Projection	Bycatch Mortality ^{a/} Projection	Bycatch Projection ^{b/}	Observed in 2005	
				Catch	Bycatch Mortality
CHINOOK (thousands of fish)					
OCEAN FISHERIES ^{c/} :					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll	42.2	6.2	13.3	41.9	6.2 ^{d/}
Non-Indian Commercial Troll	34.0	9.9	26.8	46.6	9.5 ^{d/}
Recreational	31.0	4.2	14.1	40.0	5.2
CAPE FALCON TO HUMBUG MT.					
Commercial Troll	45.1	5.8	14.3	238.4	26.2
Recreational	14.2	2.2	9.0	18.6	1.6
HUMBUG MT. TO HORSE MT.					
Commercial Troll	0.0	0.0	0.0	7.2	0.9 ^{d/}
Recreational	7.3	1.1	4.7	17.2	2.7 ^{d/}
SOUTH OF HORSE MT.					
Commercial	140.7	18.2	44.7	333.3	43.0 ^{d/}
Recreational	87.2	13.6	45.2	126.0	19.7 ^{d/}
TOTAL OCEAN FISHERIES					
Commercial Troll	262.0	40.0	99.1	667.4	85.9
Recreational	139.7	21.1	73.0	201.8	29.2
INSIDE FISHERIES:					
Buoy 10	NA	NA	NA	9.3	NA
COHO (thousands of fish)					
OCEAN FISHERIES ^{c/} :					
NORTH OF CAPE FALCON					
Treaty Indian Ocean Troll	37.5	2.6	8.5	23.9	2.0
Non-Indian Commercial Troll ^{e/}	6.8	6.2	20.0	4.1	2.5
Recreational ^{e/}	73.2	14.7	77.1	61.7	14.8
SOUTH OF CAPE FALCON					
Commercial Troll	-	3.4	10.9	-	6.2
Recreational ^{e/}	20.0	11.2	59.1	3.6	1.6
TOTAL OCEAN FISHERIES					
Commercial Troll	44.3	12.2	39.4	28.0	4.5
Recreational	93.2	25.9	136.2	65.3	16.4
INSIDE FISHERIES:					
Area 4B ^{e/}	3.0	1.1	5.6	-	-
Buoy 10 ^{e/}	8.3	1.6	8.3	6.9	1.6

a/ The bycatch mortality reported in this table consists of drop-off mortality (includes predation on hooked fish) plus hook-and-release mortality of Chinook and coho salmon in Council-area fisheries. Drop-off mortality for both chinook and coho is assumed to be equal to 5% of total encounters. The hook-and-release mortality (HRM) rates used for both Chinook and coho are:

Commercial: 26%.

Recreational, north of Pt. Arena: 14%.

Recreational, south of Pt. Arena: 20% (based on the expected proportion of fish that will be caught using mooching versus

b/ Bycatch calculated as dropoff mortality plus fish released.

c/ Includes Oregon territorial water, late season chinook fisheries.

d/ Based on observed sublegal encounter rates.

e/ Includes one or more selective fishery options that allow only retention of coho marked with a healed adipose fin clip.

TABLE 7. Expected coastwide lower Columbia River (LCR) natural, Oregon coastal natural (OCN), and Rogue/Klamath (RK) coho exploitation rates by fishery for 2006 ocean fisheries management measures adopted by the Council. (Page 1 of 1)

Fishery	Exploitation Rate (Percent)		
	LCR	OCN	RK
SOUTHEAST ALASKA	NA	0.0%	0.0%
BRITISH COLUMBIA	NA	0.3%	0.2%
PUGET SOUND/STRAIT	NA	0.1%	0.0%
NORTH OF CAPE FALCON			
Treaty Indian Ocean Troll	1.8%	0.6%	0.0%
Recreational	4.7%	1.1%	0.0%
Non-Indian Troll	0.8%	0.3%	0.0%
SOUTH OF CAPE FALCON			
Recreational:	2.2%		
Cape Falcon to Humbug Mt.		3.1%	0.2%
Humbug Mt. OR/CA border (KMZ)		0.1%	0.2%
OR/CA border to Horse Mt. (KMZ)		0.5%	1.1%
Fort Bragg		0.6%	1.4%
South of Pt. Arena		0.8%	1.3%
Troll:	0.5%		
Cape Falcon to Humbug Mt.		0.3%	0.0%
Humbug Mt. OR/CA border (KMZ)		0.0%	0.0%
OR/CA border to Horse Mt. (KMZ)		0.0%	0.0%
Fort Bragg		0.0%	0.0%
South of Pt. Arena		0.6%	0.6%
BUOY 10	1.0%	0.2%	0.0%
ESTUARY/FRESHWATER	NA	1.1%	0.2%
TOTAL	9.9% ^{a/}	9.6%	5.2%

a/ Does not include Buoy 10 impacts, which are not counted against the ocean fishery constraint of no more than 10%.

TABLE 8. Projected coho mark rates for 2006 fisheries under base period fishing patterns (% marked). (Page 1 of 1)

Area	Fishery	June	July	August	Sept.
Canada					
Johnstone Strait	Recreational	-	19%	18%	-
West Coast Vancouver Island	Recreational	47%	20%	14%	12%
North Georgia Strait	Recreational	36%	35%	35%	30%
South Georgia Strait	Recreational	39%	39%	32%	32%
Juan de Fuca Strait	Recreational	39%	36%	39%	40%
Johnstone Strait	Troll	46%	32%	21%	28%
NW Vancouver Island	Troll	21%	20%	24%	28%
SW Vancouver Island	Troll	37%	34%	37%	40%
Georgia Strait	Troll	46%	46%	47%	38%
Puget Sound					
Strait of Juan de Fuca (Area 5)	Recreational	46%	40%	38%	39%
Strait of Juan de Fuca (Area 6)	Recreational	40%	37%	41%	37%
San Juan Island (Area 7)	Recreational	25%	48%	46%	33%
North Puget Sound (Areas 6 & 7A)	Net	-	36%	39%	44%
Council Area					
Neah Bay (Area 4/4B)	Recreational	31%	46%	42%	46%
LaPush (Area 3)	Recreational	47%	42%	52%	31%
Westport (Area 2)	Recreational	57%	55%	58%	63%
Columbia River (Area 1)	Recreational	72%	70%	68%	71%
Tillamook	Recreational	62%	58%	56%	52%
New port	Recreational	60%	59%	56%	46%
Coos Bay	Recreational	57%	57%	50%	35%
Brookings	Recreational	56%	41%	41%	20%
Neah Bay (Area 4/4B)	Troll	43%	40%	43%	46%
LaPush (Area 3)	Troll	39%	45%	44%	42%
Westport (Area 2)	Troll	39%	45%	56%	46%
Columbia River (Area 1)	Troll	56%	57%	62%	64%
Tillamook	Troll	57%	55%	58%	53%
New port	Troll	57%	57%	55%	55%
Coos Bay	Troll	56%	56%	50%	40%
Brookings	Troll	49%	48%	51%	41%
Columbia River					
Buoy 10	Recreational	-	-	-	69%

TABLE 9. Preliminary projected exvessel value under Council-adopted 2006 non-Indian commercial troll regulatory options compared to 2005 and the 2001-2005 average (inflation adjusted). (Page 1 of 1)

Management Area	Exvessel Value (thousands of dollars) ^{a/}				
	Projection for 2006 ^{b/}	2005 Actual	Percent Change from 2005	2001-2005 Average ^{c/}	Percent Change From 2001-2005 Average
North of Cape Falcon	1,330	1,686	-21%	1,318	1%
Cape Falcon to Humbug Mt.	1,524	8,138	-81%	7,195	-79%
Humbug Mt. to Horse Mt.	0	314	-100%	353	-100%
Horse Mt. to Pt. Arena	129	1,464	-91%	2,685	-95%
South of Pt. Arena	5,227	10,974	-52%	8,381	-38%
Total South of Cape Falcon	6,880	20,890	-67%	18,614	-63%
West Coast Total	8,210	22,576	-64%	19,932	-59%

a/ Exvessel values are not comparable to the community income impacts shown in Table 10.

b/ Dollar value estimates are based on expected catches in the Council management area, 2005 exvessel prices and 2005 average weight per fish.

c/ Values adjusted to 2005 dollars.

TABLE 10. Preliminary projected angler trips and state level personal income impacts generated under Council-adopted 2006 recreational ocean salmon fishery regulatory options compared to 2005 and the 2001-2005 average (inflation adjusted). (Page 1 of 1)

Management Area	Angler Trips (thousands)			Coastal Community Income Impacts (thousands of dollars) ^{a/}			Percent Change in Income Impacts	
	Projection for	2005 Actual	2001-2005	Projection for	2005 Actual	2001-2005	Compared to	Compared to
	2006		Avg.	2006		Avg.	2005 Actual	2001-2005 Avg.
North of Cape Falcon ^{b/}	73.1	103.9	122.9	6,162	8,753	10,460	-30%	-41%
Cape Falcon to Humbug Mt.	50.2	50.2	83.3	3,519	3,519	5,976	0%	-41%
Humbug Mt. to Horse Mt.	20.6	29.7	39.3	1,418	2,047	2,711	-31%	-48%
Horse Mt. to Pt. Arena	21.9	24.0	28.2	2,190	2,403	2,796	-9%	-22%
South of Pt. Arena	128.6	130.8	131.0	13,955	14,188	14,759	-2%	-5%
Total South of Cape Falcon ^{c/}	221.2	234.6	281.7	21,081	22,157	26,242	-5%	-20%
West Coast Total	294.4	338.5	404.6	27,243	30,910	36,702	-12%	-26%

a/ Income impacts are sums of the impacts generated from fishing activities in individual communities within each management area. Income impacts are not comparable to the exvessel values shown in Table 9. All dollar values are adjusted to 2005 real values.

b/ Based on 2005 effort success rates for Chinook and coho.

c/ South of Cape Falcon estimates based on selective coho fishery quotas and season dates as compared to the 2005 seasons.

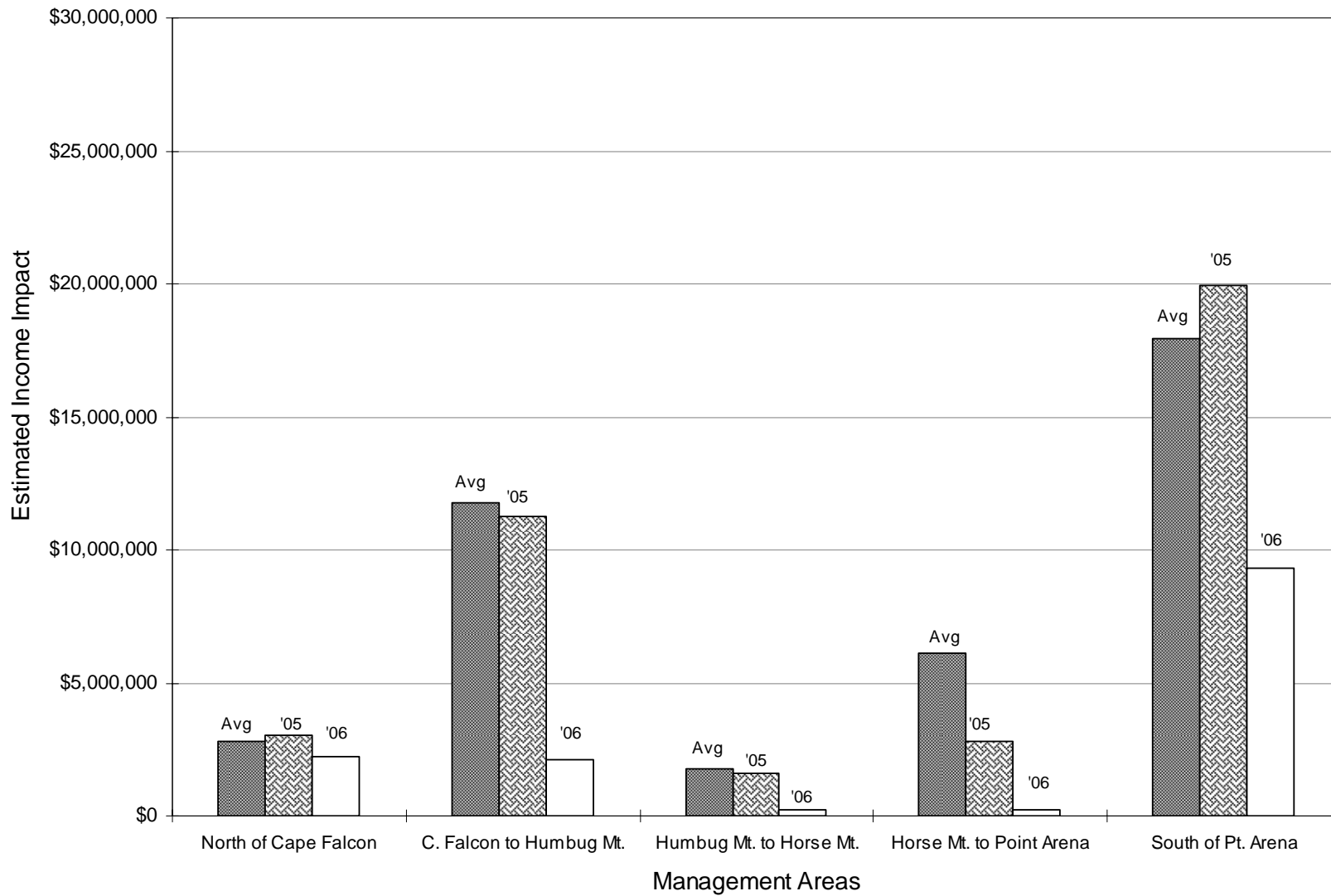


FIGURE 3. Projected coastal community personal income impacts associated with the 2006 commercial troll fishery under Council-adopted management measures compared to 2005 and the 2001-2005 average in real (inflation adjusted) dollars.

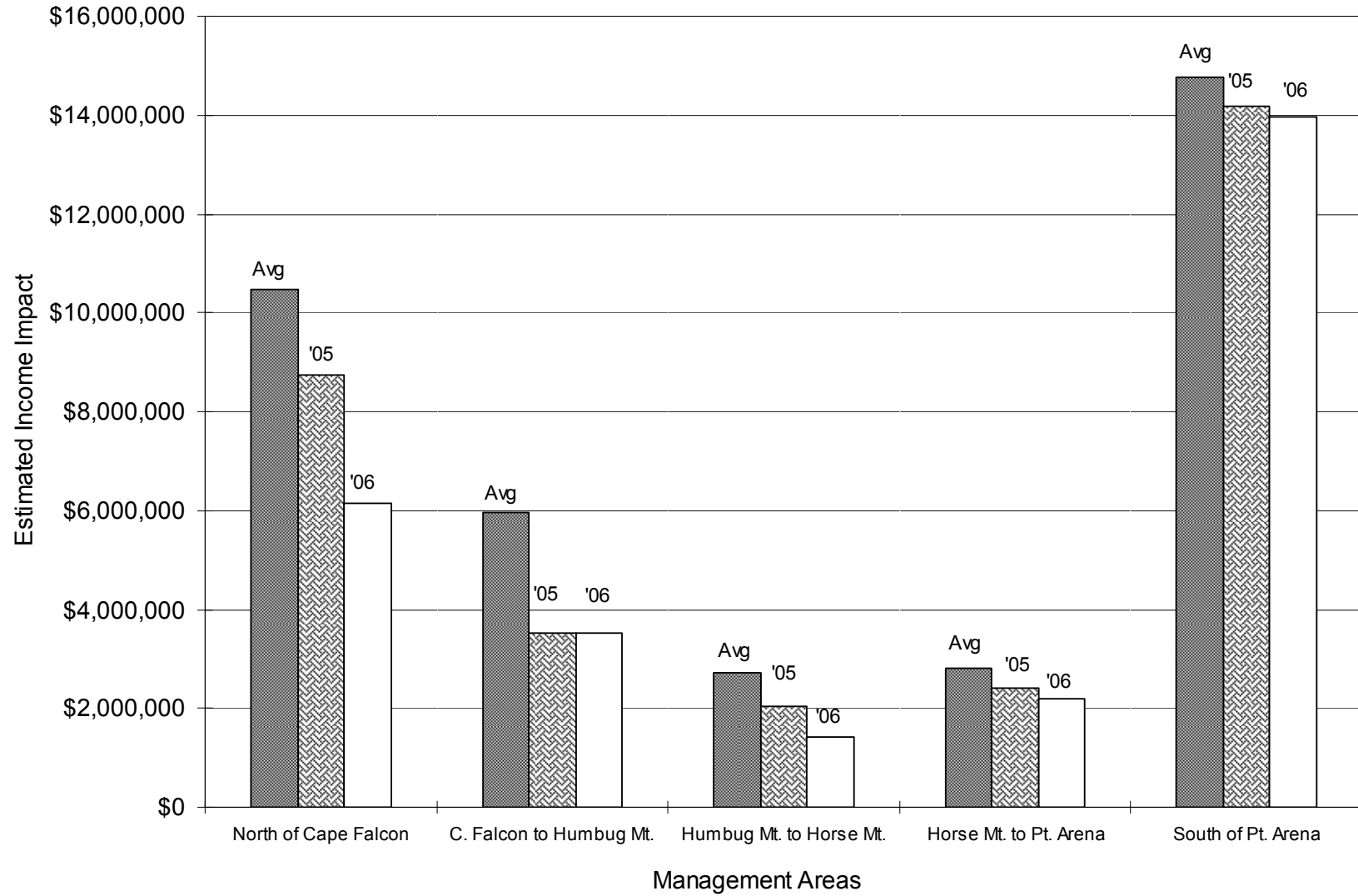


FIGURE 4. Projected coastal community personal income impacts associated with the 2006 recreational fishery under Council-adopted management measures compared to 2005 and the 2001-2005 average in real (inflation adjusted) dollars.

APPENDIX A

BIOLOGICAL EVALUATION OF 2006 COUNCIL-ADOPTED

OCEAN SALMON FISHERY IMPACTS

ON FISH SPECIES LISTED UNDER THE ENDANGERED SPECIES ACT

Since 1989, NMFS has listed 16 ESUs of salmon under the ESA (Table A-1). As the listings have occurred, NMFS has initiated formal section 7 consultations and issued biological opinions (Table A-2) that consider the impacts resulting from implementation of the Salmon FMP, or from annual management measures, to listed salmonid species. NMFS has also reinitiated consultation on certain ESUs when new information has become available on the status of the stocks or on the impacts of the Salmon FMP on the stocks. Some opinions have concluded that implementation of the Salmon FMP is not likely to jeopardize the continued existence of certain listed ESUs. Other opinions have found the Salmon FMP is likely to jeopardize certain listed ESUs and have identified reasonable and prudent alternatives that would avoid the likelihood of jeopardizing the continued existence of the ESU under consideration. The consultation standards referred to in this document include (1) reasonable and prudent alternatives, (2) conservation objectives for which NMFS conducted section 7 consultations and arrived at a no-jeopardy conclusion, and (3) NMFS requirements under section 4(d) determinations.

Amendment 12 to the Salmon FMP added to the list of stocks in the salmon management unit the generic category “species listed under the ESA” and the respective escapement goal to “manage consistent with NMFS jeopardy standards or recovery plans to meet immediate conservation needs and long-term recovery of the species”. Amendment 14 specified those listed ESUs and clarified which stocks in the FMP management unit were representative of the ESUs.

TABLE A-1. Salmon ESUs listed under the ESA.

Species	ESU	Status	Federal Register Notice	
Chinook Salmon (<i>O. tshawytscha</i>)	Sacramento River Winter	Endangered	70 FR 37160	6/28/05
	Slope River Fall	Threatened	70 FR 37160	6/28/05
	Slope River Spring/Summer	Threatened	70 FR 37160	6/28/05
	Puget Sound	Threatened	70 FR 37160	6/28/05
	Lower Columbia River	Threatened	70 FR 37160	6/28/05
	Upper Willamette River	Threatened	70 FR 37160	6/28/05
	Upper Columbia River Spring	Endangered	70 FR 37160	6/28/05
	Central Valley Spring	Threatened	70 FR 37160	6/28/05
	California Coastal	Threatened	70 FR 37160	6/28/05
Chum Salmon (<i>O. keta</i>)	Hood Canal Summer-Run	Threatened	70 FR 37160	6/28/05
	Columbia River	Threatened	70 FR 37160	6/28/05
Coho Salmon (<i>O. kisutch</i>)	Central California Coastal	Threatened	70 FR 37160	6/28/05
	S. Oregon/ N. California Coastal	Threatened	70 FR 37160	6/28/05
	Lower Columbia River	Threatened	70 FR 37160	6/28/05
Sockeye Salmon (<i>O. nerka</i>)	Slope River	Endangered	70 FR 37160	6/28/05
	Ozette Lake	Threatened	70 FR 37160	6/28/05

TABLE A-2. NMFS' Endangered Species Act consultations and Section 4(d) determinations on ocean fisheries implemented under the Salmon FMP and their duration.	
Date	Evolutionarily Significant Unit covered and effective period
March 8, 1996	Snake River Chinook and sockeye (until reinitiated)
April 28, 1999	Oregon coastal coho, Southern Oregon/ Northern California coastal coho, Central California coastal coho (until reinitiated) ^{1/}
April 28, 2000	Central Valley spring Chinook and California coastal Chinook (until reinitiated)
April 27, 2001	Hood Canal summer chum 4(d) limit (until reinitiated)
April 30, 2001	Upper Columbia River spring Chinook and Upper Willamette River Chinook (until reinitiated)
April 30, 2001	Lower Columbia River Chinook, Upper Willamette Chinook, Upper Columbia spring Chinook, Lake Ozette sockeye, ten steelhead ESUs and Columbia River chum (until reinitiated)
April 27, 2004	Sacramento River winter Chinook (April 30, 2010)
April 29, 2004	Puget Sound and Lower Columbia River Chinook (until reinitiated)
Expected Prior to May 1, 2006	Lower Columbia River natural coho

1/ Oregon coastal coho are no longer listed under the Endangered Species Act

NMFS, in a letter to the Council dated March 6, 2006, provided guidance on protective measures for listed species for the 2006 fishing season. The letter summarized the requirements of NMFS' biological opinions and 4(d) rules which are to be applied to the 2006 management season. The ESA consultation standards and the exploitation rate (or other criteria) projected for the 2006 management measures are presented in Table A-3. Some listed stocks are either rarely caught in Council fisheries (e.g., spring Chinook from the upper Columbia and Willamette rivers) or already receive sufficient protection from Salmon FMP and ESA consultation standards for other listed ESUs (e.g., Central Valley spring Chinook). NMFS has determined that management actions designed to limit catch from these ESUs beyond what will be provided by harvest constraints for other stocks are not necessary.

Additional listed salmonid ESUs found within the Council area, but which are not significantly impacted by Council-managed fisheries include:

Sockeye

- Snake River (endangered)
- Ozette Lake Sockeye (threatened)

Chum

- Columbia River (threatened)
- Hood Canal summer (threatened)

Steelhead

- Southern California (endangered)
- Central Valley, California (threatened)
- South-central California coast (threatened)
- Central California coast (threatened)
- Upper Columbia River (endangered)
- Upper Willamette River (threatened)
- Middle Columbia River (threatened)
- Lower Columbia River (threatened)
- Snake River Basin (threatened)
- Northern California (threatened)

TABLE A-3. Impacts of Council adopted 2006 management measures on ESA listed ESUs. (Page 1 of 2)

ESU	Stock Representation in Salmon FMP	ESA Consultation Standard	2006 Management Measures
Central Valley spring Chinook - threatened	· Sacramento River spring	No guidance in addition to the ESA consultation standard for Sacramento winter Chinook.	Consultation standard for Sacramento River spring Chinook is met.
Sacramento River winter Chinook - endangered	· Sacramento River winter	Open recreational fishery south of Point Arena no earlier than first Saturday in April and close no later than the first Sunday in October south of Pigeon Point, and no later than the second Sunday in November from Point Arena to Pigeon Point, with a minimum size limit no less than 20 inches. Open commercial fishery south of Point Arena no earlier than May 1 and close no later than Sept 30, except Point Reyes to Point San Pedro to close no later than Oct 15, with a minimum size limit no less than 26 inches.	The recreational fishery between Point Arena and Pigeon Point is open between April 1 and November 12. The recreational fishery between Pigeon Point and the U.S./Mexico border is open between April 1 and September 24. The commercial fishery south of Point Arena is open between July 26 and September 30, and between Point Reyes and Point San Pedro between October 2 and 13. Consultation standard for Sacramento River winter Chinook is met.
California Coastal Chinook - threatened	· Eel, Mattole, and Mad Rivers	≤16.0% age-four ocean harvest rate on Klamath River fall Chinook.	11.5% Age-4 ocean harvest rate.
Lower Columbia River Chinook - threatened	· Sandy, Cowlitz, Kalama, Lewis spring · Lower River Hatchery fall · North Fork Lewis River fall	· No consultation standard. · ≤ 49.0% brood year adult equivalent exploitation rate on Coweeman tule fall Chinook. · ≥5,700 MSY level adult spawning escapement.	Meet hatchery escapement goals. 47.2% total ocean and freshwater adult equivalent (AEQ) exploitation rate. 16,600 adults to the Columbia River mouth.
Upper Willamette Chinook - threatened	· Upper Willamette River spring	No specific requirements. Rare occurrence in Council fisheries.	North of Falcon troll fisheries do not begin prior to May 1
Upper Columbia River spring Chinook - endangered	· Upper Columbia River spring	No specific requirements. Rare occurrence in Council fisheries.	North of Falcon troll fisheries do not begin prior to May 1.
Snake River fall Chinook - threatened	· Snake River fall	≥30.0% reduction from the 1988-1993 average adult equivalent age-3/age-4 exploitation rate for all ocean fisheries.	35.7% reduction from 1988-1993 average age 3/4 AEQ ocean exploitation rate.
Snake River spring/summer Chinook - threatened	· Snake River spring/summer	No specific requirements. Rare occurrence in Council fisheries.	North of Falcon troll fisheries do not begin prior to May 1.

TABLE A-3. Impacts of Council adopted 2006 management measures on ESA listed ESUs. (Page 2 of 2)

ESU	Stock Representation in Salmon FMP	ESA Consultation Standard	2006 Management Measures	
Puget Sound Chinook - threatened	<ul style="list-style-type: none"> · Elwha summer/fall · Dungeness spring · Mid-Hood Canal summer/fall · Skokomish summer/fall · Nooksack spring · Skagit summer/fall · Skagit spring · Stillaguamish summer/fall · Snohomish summer/fall · Lake Washington summer/fall · Green River summer/fall · White River spring · Puyallup summer/fall · Nisqually River summer/fall 	Exploitation Rate/Spawner Escapement ^{1/} <ul style="list-style-type: none"> · ≤10.0% Southern U.S. ER · ≤10.0% Southern U.S. ER · ≤10.4% pre-term southern U.S. ER · ≤15.0% Southern U.S. ER and ≥1,200 natural spawners · ≤4.0% Southern U.S. ER · ≤50.0% Total ER · ≤38.0% Total ER · ≤15.0% Southern U.S. ER · ≤15.0% Southern U.S. ER · ≤15.0% pre-term southern U.S. ER · ≤15.0% pre-term southern U.S. ER and ≥5,800 natural spawners · ≤20.0% Total ER · ≤50.0% Total ER · ≥1,100 spawners 	Exploitation Rate 2.2% 2.1% 8.9% 9.0% 3.6% 30.3% 18.4% 12.2% 14.7% 10.4% 10.4% 19.7% 50.0%	Spawner Escapement 1,230 13,527 1,752
Central California Coast coho - threatened	Not yet represented	No retention of coho in commercial and recreational fisheries off California.	No retention of coho in California fisheries.	
Southern Oregon/Northern California Coastal coho - threatened	C South Oregon coast natural C Northern California	≤13.0% marine exploitation rate on Rogue/Klamath hatchery coho.	5.2% marine exploitation rate.	
Oregon Coast Natural coho ^{2/}	C South Central Oregon coast C North Central Oregon coast C North Oregon coast natural	No ESA consultation standard in effect. Salmon FMP limit of ≤13%-35% (≤20% in 2006) and OCN workgroup recommendation (≤15% in 2006) combined marine/freshwater exploitation rate, depending on parental escapement and marine survival index.	9.6% Marine and freshwater exploitation rate.	
Lower Columbia River natural coho - threatened	Composite unmarked early and late Columbia River hatchery coho.	No consultation standard. NMFS guidance of ≤15.0% exploitation rate in Council area ocean and mainstem Columbia River fisheries.	9.9% Council area fisheries	

1/ See Puget Sound Chinook Resource Management Plan for details on management framework.

2/ Oregon coastal coho are no longer listed under the Endangered Species Act, but are subject to the exploitation rates prescribed under Amendment 13 to the salmon FMP and the OCN workgroup matrix accepted as expert biological advice by the Council November, 2000.

